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&lt;210&gt; 4893

&lt;211&gt; 5212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4893

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&lt;210&gt; 4894

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4894

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&lt;210&gt; 4895

&lt;211&gt; 1087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4895

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&lt;210&gt; 4896

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4896

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&lt;211&gt; 1733

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4897

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Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
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&lt;210&gt; 4901

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4901

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&lt;210&gt; 4902

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4902

Met	Ser	Gly	Gln	Arg	Val	Asp	Val	Lys	Val	Val	Met	Leu	Gly	Lys	Glu
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Tyr	Val	Gly	Lys	Thr	Ser	Leu	Val	Glu	Arg	Tyr	Val	His	Asp	Arg	Phe
		20						25				30			
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
	50				55					60					
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65				70					75					80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
			85					90					95		
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
		100					105					110			
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
	115						120				125				
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
	130					135				140					
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145					150					155					160
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
			165						170					175	
Ser	Arg	Arg	Ser	Ser	Trp	Pro	Pro								
			180												

&lt;210&gt; 4903

&lt;211&gt; 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

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 180  
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 1064

&lt;210&gt; 4904

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala  
 1 5 10 15  
 Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg  
 20 25 30  
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val  
 35 40 45  
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala



```

      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65              70              75              80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
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Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

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<210> 4905  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

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tgcccggcgg tccagcgagg gtggcacgaa caggaggcct gccctggggc acagcacgct
180
taggggcagc gactgtgtct ggcagcgcca gcggcgggga catgggctgg gtgtgccgag
240
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300
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360
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480
tcgccgcct ctgcctggt gctggccttt ggcgggaacc ccctgcactg caactgcgag
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gctctgggag gccgc
615

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<210> 4906  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

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<400> 4906
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Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
      20              25              30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
      35              40              45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
      50              55              60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
65              70              75              80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

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ggagatccgc cagttccagc ccagacagaa agtccatata ctccgtctct tcccccgga  
 1260  
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 1320  
 cgcggctccc cctcncggc ttccaactct ccttcgtcgc caaactgctg cttgcggccg  
 1380  
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 1748

&lt;210&gt; 4908

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4908

Glu	Lys	Thr	Thr	Pro	Ser	Gly	Arg	Thr	Pro	Ser	Arg	Thr	Pro	Pro	Thr
1				5				10					15		
Pro	Tyr	Pro	Cys	Pro	His	Gly	Asp	Arg	Leu	Leu	Pro	Pro	Ser	Arg	Pro
			20					25					30		
Leu	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Ala	Glu	Arg	Ser	Arg
			35				40					45			
Gly	His	Arg	Arg	Ala	Ser	Leu									
			50			55									

&lt;210&gt; 4909

&lt;211&gt; 1960

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4909

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1800  
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1920  
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1960

<210> 4910  
 <211> 423  
 <212> PRT  
 <213> Homo sapiens

<400> 4910  
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 20 25 30  
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 35 40 45  
 Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn  
 50 55 60  
 Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val  
 65 70 75 80  
 Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys  
 85 90 95  
 Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu  
 100 105 110  
 Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser  
 115 120 125  
 Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr  
 130 135 140  
 Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg  
 145 150 155 160  
 Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile  
 165 170 175  
 Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser  
 180 185 190  
 Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro  
 195 200 205  
 Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly  
 210 215 220  
 Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln  
 225 230 235 240  
 Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile  
 245 250 255  
 Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His  
 260 265 270  
 Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His  
 275 280 285  
 Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln  
 290 295 300  
 Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala  
 305 310 315 320  
 Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro  
 325 330 335  
 Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys  
 340 345 350  
 Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu  
 355 360 365  
 Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

370		375		380
Phe Thr Val Ser Gly Ile Gln Val Arg Tyr Met Lys Ile Ile Glu Lys				
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Ser Gly Tyr Gln Ala Leu Pro Trp Val Arg Tyr Ile Thr Gln Ser Gly				400
	405		410	415
Asp Tyr Gln Leu Arg Thr Ser				
420				

<210> 4911  
 <211> 1862  
 <212> DNA  
 <213> Homo sapiens

<400> 4911  
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 1860  
 tt  
 1862

<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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Val	Lys	Arg	Asn	Phe	Leu	Glu	Ala	Leu	Lys	Ser	Asn	Asp	Phe	Gly	Lys
		20						25					30		
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
		35				40						45			
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
	50					55					60				
Trp	Leu	Pro	Ser	Tyr	Lys	Leu	Lys	Ser	Ser	Trp	Ala	Thr	Gly	Leu	His
65				70						75				80	
Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
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His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
		100						105					110		
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
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Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
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His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu	Val
145				150						155				160	
Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
			165					170						175	
Glu	Val	Glu	His	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu

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195	200	205
Gln Asp Glu Glu Thr Pro Leu His Thr Ala Ala His Phe Gly Leu Ser		
210	215	220
Glu Leu Val Ala Phe Tyr Val Glu His Gly Ala Ile Val Asp Ser Val		
225	230	235
Asn Ala His Met Glu Thr Pro Leu Ala Ile Ala Ala Tyr Trp Ala Leu		
245	250	255
Arg Phe Lys Glu Gln Glu Tyr Ser Thr Glu His His Leu Val Cys Arg		
260	265	270
Met Leu Leu Asp Tyr Lys Ala Glu Val Asn Ala Arg Asp Asp Asp Phe		
275	280	285
Lys Ser Pro Leu His Lys Ala Ala Trp Asn Cys Asp His Val Leu Met		
290	295	300
His Met Met Leu Glu Ala Gly Ala Glu Ala Asn Leu Met Asp Ile Asn		
305	310	315
Gly Cys Ala Ala Ile Gln Tyr Val Leu Lys Val Thr Ser Val Arg Pro		
325	330	335
Ala Ala Gln Pro Glu Ile Cys Tyr Gln Leu Leu Leu Asn His Gly Ala		
340	345	350
Ala Arg Ile Tyr Pro Pro Gln Phe His Lys Val Ile Gln Ala Cys His		
355	360	365
Ser Cys Pro Lys Ala Ile Glu Val Val Val Asn Ala Tyr Glu His Ile		
370	375	380
Arg Trp Asn Thr Lys Trp Arg Arg Ala Ile Pro Asp Asp Asp Leu Glu		
385	390	395
Val Asn Asn Arg Phe Pro Ser Asn Ser Phe His Tyr Gln Val Leu Pro		
405	410	415
Asp Cys Ser Arg Ser Thr Glu Asn Cys Asn Lys Lys Val Gly Phe Glu		
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Cys Arg Phe Glu Ser		
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<210> 4913  
 <211> 2090  
 <212> DNA  
 <213> Homo sapiens

<400> 4913  
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1980

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2090

<210> 4914

<211> 529

<212> PRT

<213> Homo sapiens

<400> 4914

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Gly	Gly	Gly	Gly	Pro	Ala	Pro	Ala	Arg	Gly	Pro	Arg	Thr	Pro	Asn	Leu
			20					25					30		
Asn	Pro	Asn	Pro	Leu	Ile	Asn	Val	Arg	Asp	Arg	Leu	Phe	His	Ala	Leu
		35					40					45			
Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
	50					55					60				
Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
65					70					75				80	
Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
				85					90					95	
Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
			100					105					110		
Val	Glu	Val	Arg	His	Asn	Ser	Ser	Arg	Ala	Pro	Val	Phe	Leu	Gln	Phe
			115					120				125			
Cys	Asp	Ser	Gly	Gly	Arg	Gly	Ser	Phe	Pro	Gly	Leu	Ala	Val	Glu	Pro
	130					135					140				
Gly	Ser	Asn	Leu	Asp	Met	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Leu	Thr	Met
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Glu	Met	Phe	Gly	Asn	Ser	Ser	Ile	Lys	Phe	Glu	Leu	Asp	Ile	Glu	Pro
			165						170					175	
Lys	Val	Phe	Lys	Pro	Pro	Ser	Ser	Thr	Glu	Ala	Leu	Asn	Asp	Ser	Gln
			180					185						190	
Glu	Phe	Pro	Phe	Pro	Glu	Thr	Pro	Thr	Lys	Val	Trp	Pro	Gln	Asp	Glu
		195					200					205			
Tyr	Ile	Val	Glu	Tyr	Ser	Leu	Glu	Tyr	Gly	Phe	Leu	Arg	Leu	Ser	Gln
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Ala	Thr	Arg	Gln	Arg	Leu	Ser	Ile	Pro	Val	Met	Val	Val	Thr	Leu	Asp
225					230					235				240	
Pro	Thr	Arg	Asp	Gln	Cys	Phe	Gly	Asp	Arg	Phe	Ser	Arg	Leu	Leu	Leu
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Asp	Glu	Phe	Leu	Gly	Tyr	Asp	Asp	Ile	Leu	Met	Ser	Ser	Val	Lys	Gly
		260						265					270		
Leu	Ala	Glu	Asn	Glu	Glu	Asn	Lys	Gly	Phe	Leu	Arg	Asn	Val	Val	Ser
		275					280					285			
Gly	Glu	His	Tyr	Arg	Phe	Val	Ser	Met	Trp	Met	Ala	Arg	Thr	Ser	Tyr
		290				295					300				
Leu	Ala	Ala	Phe	Ala	Ile	Met	Val	Ile	Phe	Thr	Leu	Ser	Val	Ser	Met
305					310					315				320	
Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
			325						330					335	
Leu	Gln	Met	Leu	Glu	Met	Asn	Met	Ala	Ile	Ala	Phe	Pro	Ala	Ala	Pro

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          340          345          350
Leu Leu Thr Val Ile Leu Ala Leu Val Gly Met Glu Ala Ile Met Ser
          355          360          365
Glu Phe Phe Asn Asp Thr Thr Thr Ala Phe Tyr Ile Ile Leu Ile Val
          370          375          380
Trp Leu Ala Asp Gln Tyr Asp Ala Ile Cys Cys His Thr Ser Thr Ser
385          390          395          400
Lys Arg His Trp Leu Arg Phe Phe Tyr Leu Tyr His Phe Ala Phe Tyr
          405          410          415
Ala Tyr His Tyr Arg Phe Asn Gly Gln Tyr Ser Ser Leu Ala Leu Val
          420          425          430
Thr Ser Trp Leu Phe Ile Gln His Ser Met Ile Tyr Phe Phe His His
          435          440          445
Tyr Glu Leu Pro Ala Ile Leu Gln Gln Val Arg Ile Gln Glu Met Leu
          450          455          460
Leu Gln Ala Pro Pro Leu Gly Pro Gly Thr Pro Thr Ala Leu Pro Asp
465          470          475          480
Asp Met Asn Asn Asn Ser Gly Ala Pro Ala Thr Ala Pro Asp Ser Ala
          485          490          495
Gly Gln Pro Pro Ala Leu Gly Pro Val Phe Glu Leu Val Ser Lys Glu
          500          505          510
Arg Gly Trp Gly Ser Ala Glu Gly Ser Gly Gly Val Leu Val Gly Leu
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Gln

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&lt;210&gt; 4915

&lt;211&gt; 1157

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4915

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660

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&lt;210&gt; 4916

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4916

Met	Arg	Val	Gln	Lys	Asp	Cys	Val	Gln	Gly	Ala	Leu	Pro	Thr	Gly	Arg
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Ala	Gly	Ala	Ser	Arg	Lys	Arg	Lys	Glu	Val	Pro	Ser	Arg	Leu	Arg	Thr
		20						25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
		35					40					45			
Arg	Gly	Pro	Arg	Gly	Pro	Ser	Ala	Ala	Pro	Arg					
		50					55								

&lt;210&gt; 4917

&lt;211&gt; 1544

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4917

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 1544

&lt;210&gt; 4918

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4918

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 20 25 30  
 Trp Leu Gly Leu Ala Gly Pro Gly Ala Ala Ala Asp Gly Ser Glu Pro  
 35 40 45  
 Ala Ala Gly Ala Gly Arg Gly Gly Ala Arg Ala Val Arg Val Asp Val  
 50 55 60  
 Arg Leu Pro Arg Gln Asp Ala Leu Val Leu Glu Gly Val Arg Ile Gly

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65          70          75          80
Ser Glu Ala Asp Pro Ala Pro Leu Leu Gly Gly Arg Leu Leu Leu Met
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Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
          100          105          110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
          115          120          125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
          130          135          140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Leu Ile Leu
          145          150          155          160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
          165          170          175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
          180          185          190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
          195          200          205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
          210          215          220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
          225          230          235          240
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
          245          250          255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
          260          265          270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
          275          280          285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
          290          295          300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
          305          310          315          320
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
          325          330          335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
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&lt;210&gt; 4919

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

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360

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 480  
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 540  
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 1362

&lt;210&gt; 4920

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4920

Met	Asp	Glu	Asp	Gly	Leu	Pro	Leu	Met	Gly	Ser	Gly	Ile	Asp	Leu	Thr
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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
		35					40				45				
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
		50				55				60					
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65				70					75					80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
			85					90						95	
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

	100		105		110										
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
	115					120				125					
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
	130					135				140					
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
145				150						155				160	
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
			165					170						175	
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
			180					185						190	
Ser	Asp														

&lt;210&gt; 4921

&lt;211&gt; 1272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4921

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<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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		100						105					110	Met
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														Pro

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 <212> PRT  
 <213> Homo sapiens

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                     35                      40                      45  
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

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Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg
      100             105             110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly
      115             120             125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg
      130             135             140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser
145              150              155              160
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala
      165             170             175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro
      180             185             190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser
      195             200             205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile
      210             215             220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser
225              230              235              240
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val
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&lt;210&gt; 4925

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4925

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ctttctaaaa aaaa
374

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&lt;210&gt; 4926

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

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Lys Asp Glu Glu Asp Gly Lys Asp Ser Asp Glu Ala Glu Asp Ala Glu
35           40           45
Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr
50           55           60
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met
65           70           75           80
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Glu Asn Phe Ser
85           90           95
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu
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&lt;210&gt; 4927

&lt;211&gt; 1649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4927

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&lt;210&gt; 4928

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4928

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		20						25					30		
Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	Glu	Ala	Leu	Lys	Ala	Phe	Val
		35					40					45			
Glu	Ala	Met	Val	Asn	Glu	Asn	Val	Ser	Leu	Val	Ile	Ser	Arg	Gln	Leu
		50				55					60				
Leu	Thr	Asp	Phe	Cys	Thr	His	Leu	Pro	Asn	Leu	Pro	Asp	Ser	Thr	Ala
65					70					75				80	
Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
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Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	Arg	Gln	His	Leu	Ala	Ser	Ile
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Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
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Ile	Pro	Leu	Glu	Thr	Gly	Gln	Lys	Gln	Tyr	Asn	Val	Asp	Tyr	Lys	Leu
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      225      230      235      240
Arg Ser Arg Met Leu Ala Thr Leu Phe Lys Asp Glu Arg Cys Gln Gln
      245      250      255
Leu Ala Ala Tyr Gly Ile Leu Glu Lys Met Tyr Leu Asp Arg Ile Ile
      260      265      270
Arg Gly Asn Gln Leu Gln Glu Phe Ala Ala Met Leu Met Pro His Gln
      275      280      285
Lys Ala Thr Thr Ala Asp Gly Ser Ser Ile Leu Asp Arg Ala Val Ile
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Glu His Asn Leu Leu Ser Ala Ser Lys Leu Tyr Asn Asn Ile Thr Phe
      305      310      315      320
Glu Glu Leu Gly Ala Leu Leu Glu Ile Pro Ala Ala Lys Ala Glu Lys
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Ile Ala Ser Gln Met Ile Thr Glu Gly Arg Met Asn Gly Phe Ile Asp
      340      345      350
Gln Ile Asp Gly Ile Val His Phe Glu Thr Arg Glu Ala Leu Pro Thr
      355      360      365
Trp Asp Lys Gln Ile Gln Ser Leu Cys Phe Gln Val Asn Asn Leu Leu
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Glu Lys Ile Ser Gln Thr Ala Pro Glu Trp Thr Ala Gln Ala Met Glu
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Ala Gln Met Ala Gln
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&lt;211&gt; 5907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4929

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<211> 648

<212> PRT

<213> Homo sapiens

<400> 4930

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			20					25					30		
Val	Gln	Gln	Phe	Gly	Tyr	Gln	Arg	Arg	Ala	Ser	Asp	Asp	Gly	Lys	Leu
			35				40					45			
Thr	Asp	Pro	Ser	Lys	Thr	Ser	Asn	Thr	Ile	Arg	Val	Phe	Leu	Pro	Asn
	50					55					60				
Lys	Gln	Arg	Thr	Val	Val	Asn	Val	Arg	Asn	Gly	Met	Ser	Leu	His	Asp
65				70					75					80	
Cys	Leu	Met	Lys	Ala	Leu	Lys	Val	Arg	Gly	Leu	Gln	Pro	Glu	Cys	Cys
			85						90					95	
Ala	Val	Phe	Arg	Leu	Leu	His	Glu	His	Lys	Gly	Lys	Lys	Ala	Arg	Leu
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Asp	Trp	Asn	Thr	Asp	Ala	Ala	Ser	Leu	Ile	Gly	Glu	Glu	Leu	Gln	Val
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Asp	Phe	Leu	Asp	His	Val	Pro	Leu	Thr	Thr	His	Asn	Phe	Ala	Arg	Lys
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Thr	Phe	Leu	Lys	Leu	Ala	Phe	Cys	Asp	Ile	Cys	Gln	Lys	Phe	Leu	Leu
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Ser	Thr	Lys	Val	Pro	Thr	Met	Cys	Val	Asp	Trp	Ser	Asn	Ile	Arg	Gln
			180					185					190		
Leu	Leu	Leu	Phe	Pro	Asn	Ser	Thr	Ile	Gly	Asp	Ser	Gly	Val	Pro	Ala
	195						200					205			
Leu	Pro	Ser	Leu	Thr	Met	Arg	Arg	Met	Arg	Glu	Ser	Val	Ser	Arg	Met
210						215						220			
Pro	Val	Ser	Ser	Gln	His	Arg	Tyr	Ser	Thr	Pro	His	Ala	Phe	Thr	Phe

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225          230          235          240
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          260          265          270
Asp Ser Arg Met Ile Glu Asp Ala Ile Arg Ser His Ser Glu Ser Ala
          275          280          285
Ser Pro Ser Ala Leu Ser Ser Ser Pro Asn Asn Leu Ser Pro Thr Gly
          290          295          300
Trp Ser Gln Pro Lys Thr Pro Val Pro Ala Gln Arg Glu Arg Ala Pro
305          310          315          320
Val Ser Gly Thr Gln Glu Lys Asn Lys Ile Arg Pro Arg Gly Gln Arg
          325          330          335
Asp Ser Ser Tyr Tyr Trp Glu Ile Glu Ala Ser Glu Val Met Leu Ser
          340          345          350
Thr Arg Ile Gly Ser Gly Ser Phe Gly Thr Val Tyr Lys Gly Lys Trp
          355          360          365
His Gly Asp Val Ala Val Lys Ile Leu Lys Val Val Asp Pro Thr Pro
          370          375          380
Glu Gln Phe Gln Ala Phe Arg Asn Glu Val Ala Val Leu Arg Lys Thr
385          390          395          400
Arg His Val Asn Ile Leu Leu Phe Met Gly Tyr Met Thr Lys Asp Asn
          405          410          415
Leu Ala Ile Val Thr Gln Trp Cys Glu Gly Ser Ser Leu Tyr Lys His
          420          425          430
Leu His Val Gln Glu Thr Lys Phe Gln Met Phe Gln Leu Ile Asp Ile
          435          440          445
Ala Arg Gln Thr Ala Gln Gly Met Asp Tyr Leu His Ala Lys Asn Ile
          450          455          460
Ile His Arg Asp Met Lys Ser Asn Asn Ile Phe Leu His Glu Gly Leu
465          470          475          480
Thr Val Lys Ile Gly Asp Phe Gly Leu Ala Thr Val Lys Ser Arg Trp
          485          490          495
Ser Gly Ser Gln Gln Val Glu Gln Pro Thr Gly Ser Val Leu Trp Met
          500          505          510
Ala Pro Glu Val Ile Arg Met Gln Asp Asn Asn Pro Phe Ser Phe Gln
          515          520          525
Ser Asp Val Tyr Ser Tyr Gly Ile Val Leu Tyr Glu Leu Met Thr Gly
          530          535          540
Glu Leu Pro Tyr Ser His Ile Asn Asn Arg Asp Gln Ile Ile Phe Met
545          550          555          560
Val Gly Arg Gly Tyr Ala Ser Pro Asp Leu Ser Lys Leu Tyr Lys Asn
          565          570          575
Cys Pro Lys Ala Met Lys Arg Leu Val Ala Asp Cys Val Lys Lys Val
          580          585          590
Lys Glu Glu Arg Pro Leu Phe Pro Gln Ile Leu Ser Ser Ile Glu Leu
          595          600          605
Leu Gln His Ser Leu Pro Lys Ile Asn Arg Ser Ala Ser Glu Pro Ser
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Leu His Arg Ala Ala His Thr Glu Asp Ile Asn Ala Cys Thr Leu Thr
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Thr Ser Pro Arg Leu Pro Val Phe
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 <213> Homo sapiens

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 261

<210> 4932  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

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 Thr Gln Gly Thr Arg Lys Ile Leu Tyr Pro Tyr Ala His Leu Ser Ala  
 35 40 45  
 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val  
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 Ala Ser Trp His Arg Ser Thr  
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<210> 4933  
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 <212> DNA  
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 180  
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 240  
 aaaatcatga cgtttcgccc aaccatggaa gaatttaaag acttcaacaa atacgtggcc  
 300  
 tacatagagt cgcagggagc ccaccgggcg ggctggcca agatcatccc ccgaaggag  
 360

tgggaagccgc ggcagacgta tgatgacatc gacgacgtgg tgatcccggc gcccatccag  
 420  
 cagggtggtga cgggccagtc gggcctcttc acgcagtaca atatccagaa gaaggccatg  
 480  
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 540  
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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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Thr	Phe	Arg	Pro	Thr	Met	Glu	Glu	Phe	Lys	Asp	Phe	Asn	Lys	Tyr	Val
			20					25					30		
Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
		35				40						45			
Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
	50					55					60				
Asp	Val	Val	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Val	Val	Thr	Gly	Gln	Ser
65					70				75					80	
Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
			85					90						95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100					105					110		
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
	115					120						125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
	130					135					140				
Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
145					150				155					160	
Gly	Gly	Gly	Arg	Ala	Leu	Asn	Gly	Thr	Leu	Pro	Trp	Gln	Met	Lys	Leu
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<210> 4935  
<211> 1668  
<212> DNA  
<213> Homo sapiens

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240  
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1080  
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1140  
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1320  
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1380  
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 1560  
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<210> 4936  
 <211> 337  
 <212> PRT  
 <213> Homo sapiens

<400> 4936  
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 Gly Leu Leu Cys Val Cys Trp Ser Pro Asp Gly Lys Tyr Ile Val Thr  
 35 40 45  
 Gly Gly Glu Asp Asp Leu Val Thr Val Trp Ser Phe Val Asp Cys Arg  
 50 55 60  
 Val Ile Ala Arg Gly His Gly His Lys Ser Trp Val Ser Val Val Ala  
 65 70 75 80  
 Phe Asp Pro Tyr Thr Thr Ser Val Glu Glu Gly Asp Pro Met Glu Phe  
 85 90 95  
 Ser Gly Ser Asp Glu Asp Phe Gln Asp Leu Leu His Phe Gly Glu Ile  
 100 105 110  
 Glu Gln Ile Val His Ser Pro Gly Ser Pro Asn Gly Thr Leu Gln Thr  
 115 120 125  
 Ala Ala Pro Ser Val Thr Tyr Arg Phe Gly Ser Val Gly Gln Asp Thr  
 130 135 140  
 Gln Leu Cys Leu Trp Asp Leu Thr Glu Asp Ile Leu Phe Pro His Gln  
 145 150 155 160  
 Pro Leu Ser Arg Ala Arg Thr His Thr Asn Val Met Asn Ala Thr Ser  
 165 170 175  
 Pro Pro Ala Gly Ser Asn Gly Asn Ser Val Thr Thr Pro Gly Asn Ser  
 180 185 190  
 Val Pro Pro Pro Leu Pro Arg Ser Asn Ser Leu Pro His Ser Ala Val  
 195 200 205  
 Ser Asn Ala Gly Ser Lys Ser Ser Val Met Asp Gly Ala Ile Ala Ser  
 210 215 220  
 Gly Val Ser Lys Phe Ala Thr Leu Ser Leu His Asp Arg Lys Glu Arg  
 225 230 235 240  
 His His Glu Lys Asp His Lys Arg Asn His Ser Met Gly His Ile Ser  
 245 250 255  
 Ser Lys Ser Ser Asp Lys Leu Asn Leu Val Thr Lys Thr Lys Thr Asp  
 260 265 270  
 Pro Ala Lys Thr Leu Gly Thr Pro Leu Cys Pro Arg Met Glu Asp Val  
 275 280 285  
 Pro Leu Leu Glu Pro Leu Ile Cys Lys Lys Ile Ala His Glu Arg Leu  
 290 295 300  
 Thr Val Leu Ile Phe Leu Glu Asp Cys Ile Val Thr Ala Cys Gln Glu

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 1320  
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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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Ile	Gln	Val	His	Tyr	His	Ile	Gly	Leu	Asn	Leu	Pro	Gly	Cys	Val
		20					25					30		Ala
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val
		35					40					45		Pro
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met
	50				55					60				Gly
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu
65					70					75				80
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala
			85						90					95
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr
		100						105					110	Leu
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr
	115						120					125		Ala
Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile
	130					135				140				
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His
145					150					155				160
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu
			165						170					175
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser
		180						185					190	Met
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala
	195					200						205		Val
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met
														Asp



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      210              215              220
Ser Ala Val Tyr Val Glu Met Leu Gln Ile Leu Leu Pro His Phe Ser
225              230              235              240
Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys
      245              250              255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260              265              270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275              280              285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290              295              300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
305              310              315              320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325              330              335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340              345              350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355              360              365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370              375              380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
385              390              395              400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405              410              415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420              425              430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
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Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys
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Met Ser Leu Lys Lys
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<210> 4943  
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 <212> DNA  
 <213> Homo sapiens

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120
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180
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420

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&lt;210&gt; 4944

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4944

Met	Ser	Ser	Leu	Ser	Glu	Tyr	Ala	Phe	Arg	Met	Ser	Arg	Leu	Ser	Ala
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Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
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Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
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Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
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&lt;210&gt; 4945

&lt;211&gt; 1792

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4945

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 <213> Homo sapiens

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 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe  
 35 40 45  
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser  
 50 55 60  
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg  
 65 70 75 80  
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn  
 85 90 95  
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg  
 100 105 110  
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn  
 115 120 125  
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 130 135 140  
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala  
 145 150 155 160  
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser  
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 <212> DNA  
 <213> Homo sapiens

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1920  
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<210> 4948  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 4948  
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20 25 30  
Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn  
35 40 45  
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu  
50 55 60  
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg  
65 70 75 80  
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala  
85 90 95  
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<210> 4949  
<211> 1259  
<212> DNA  
<213> Homo sapiens

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<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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		20					25					30		
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu
		35				40						45		
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly
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Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln
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Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro
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Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser
		100					105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln
		115				120						125		
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln
	130				135						140			
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys
145				150					155					160
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His
		165							170				175	
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu
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Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu
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210	215	220
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Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

&lt;210&gt; 4951

&lt;211&gt; 1835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

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1020

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<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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		20						25					30		
Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser	Asp
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Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser	Glu
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Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	Ser	His	Ser	Pro	Pro
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Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Asp	Tyr	Glu	Ser	Glu	
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Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val	Pro
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          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
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225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
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Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
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Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
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<210> 4953  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

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tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
300
cagcatggga ggagccctgt ctgctggggg tgtctgggat cgtcggagag aggct
355

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<210> 4954  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

```

<400> 4954
Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

```

```

<210> 4955
<211> 364
<212> DNA;
<213> Homo sapiens

```

```

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120
agctcagcct gccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcacccctg ggggacatct gagggcaccc ccacccaacta ttcctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccctc actctccctc
300
cctaaccacat agtaaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
gggg
364

```

```

<210> 4956
<211> 114
<212> PRT
<213> Homo sapiens

```

```

<400> 4956
Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1      5      10      15
Gln Gly Gly Arg Gly His Gln Pro Pro Phe Cys Asp Ile Arg Thr
20      25      30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
35      40      45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
50      55      60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65      70      75      80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
85      90      95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
100      105      110
Gln Gly

```

&lt;210&gt; 4957

&lt;211&gt; 872

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4957

```

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60
tcttgattcc atccagggac attttttacc gaagcgtctc agagactggc tcagggtatt
120
tcttgacaag actgtacagg gcttctcacc atacacaaac cctccacagc ccacggctcc
180
aaccacacgc acctcctgca gtctctggagg gaaaaggagc agtaacatga agtgtctgaa
240
gatccatttc acctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga
300
ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat
360
caataaatatg tcagtcaact gcttgtcaga gacacttagc tgctgacagg tctcataaac
420
ctgactcagg taaactgccg agagatgctt gcacaggatg ctgtcactct tccgtagcac
480
tgagaatgca aatgcaggac atgaacagta atgacaagaa gccaaacatg tgtatgtttt
540
actggaactt ccaaggacct ggtaaacacg ccttccactg ggtgatgaga ttaaggtgat
600
ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag
660
cgataacaga tattcatcag gaattcggtc cgtacttctg cgcgctctcc tgcaccgccg
720
ccgccatctc gctcaggagc tctccacaa ccgccggcaa ctacggccat cgcgccgcag
780
gacacgcctt ccacgacgcg gaccgcgcga cgtccagct gactgcgcct acctgtggag
840
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872

```

&lt;210&gt; 4958

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4958

```

Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala
1           5           10          15
Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr
20          25          30
Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
35          40          45
Arg Ser Ser
50

```

&lt;210&gt; 4959

&lt;211&gt; 449

<212> DNA  
 <213> Homo sapiens

<400> 4959  
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 120  
 gcagggataa agaggagagc tggcatctgg agtcatgata tgtctgagag gcagtgcctc  
 180  
 cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat  
 240  
 tctccagatg tggatggca gacctttgga agattcactc ggctccact taaccttgtg  
 300  
 agaccaaagg ccacagcccc atgtgttctg cgtgctgttg aacatgtttg tatttcattg  
 360  
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 420  
 cacaaaggtc aaccctttcc gtttctaga  
 449

<210> 4960  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 4960  
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 Lys Val Lys Trp Arg Pro Ser Glu Ser Ser Lys Gly Leu Pro Tyr His  
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 Ile Trp Arg Ile Arg Cys Phe Ser Pro Ile Ser Gln Gly Trp Lys Leu  
 35 40 45  
 Ala Ser Ile Leu Arg Trp Pro Glu Ala Leu Pro Leu Arg Gln Ile Met  
 50 55 60  
 Thr Pro Asp Ala Ser Ser Pro Leu Tyr Pro Cys His Met Glu Gly Pro  
 65 70 75 80  
 Lys His Leu Ala Leu Asn Cys Lys Trp Lys Pro Pro Gln Pro Leu His  
 85 90 95  
 Gln Pro Pro Ala Lys Glu Thr Thr Thr Thr Ile Cys Ile Pro Ser Leu  
 100 105 110  
 Asp Thr Arg  
 115

<210> 4961  
 <211> 4737  
 <212> DNA  
 <213> Homo sapiens

<400> 4961  
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tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc  
180  
accaggaga tgcgcaacgt cagtataggc atgggcagca gtgacgagtg gtctgatgtt  
240  
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc  
300  
acaggaagca gcccaccca gggcatcgtg aacaaagctt tcggcatcaa caccgactcc  
360  
ctgtaccatg agctgtcgac ggcaggggtct gaggtcatcg gggatgtgga cgaaggggccc  
420  
gacctcctag gggagttctc aggaatgggc aaagaagtgg ggaatctgct actggaaaac  
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660  
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 4737

&lt;210&gt; 4962

&lt;211&gt; 1069

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr



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Ser Ser Val Pro Ser Ala Ala Val Thr Pro Leu Asn Glu Ser Leu Gln			
20	25	30	
Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg			
35	40	45	
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
50	55	60	
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
65	70	75	80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
85	90	95	
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
100	105	110	
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115	120	125	
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245	250	255	
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260	265	270	
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Ser Pro Pro			
305	310	315	320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325	330	335	
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
340	345	350	
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
355	360	365	
Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
370	375	380	
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
405	410	415	
Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val			
420	425	430	
Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			

435	440	445
Ser Gly Trp Arg Pro Asn Glu	Asp Asp Ala Gly Asn Gly Val Lys Pro	
450	455	460
Ala Pro Gly Arg Asp Pro Leu Thr Cys Asp Arg Glu Gly Asp Gly Glu		
465	470	475
Pro Lys Ser Ala His Ala Ser Pro Glu Lys Lys Lys Ala Lys Glu Leu		480
485	490	495
Pro Glu Met Asp Ala Thr Ser Ser Arg Val Trp Ile Leu Thr Ser Thr		
500	505	510
Leu Thr Thr Ser Lys Val Val Ile Ile Asp Ala Asn Gln Pro Gly Thr		
515	520	525
Val Val Asp Gln Phe Thr Val Cys Asn Ala His Val Leu Cys Ile Ser		
530	535	540
Ser Ile Pro Ala Ala Ser Asp Ser Asp Tyr Pro Pro Gly Glu Met Phe		
545	550	555
Leu Asp Ser Asp Val Asn Pro Glu Asp Pro Gly Ala Asp Gly Val Leu		560
565	570	575
Ala Gly Ile Thr Leu Val Gly Cys Ala Thr Arg Cys Asn Val Pro Arg		
580	585	590
Ser Asn Cys Ser Ser Arg Gly Asp Thr Pro Val Leu Asp Lys Gly Gln		
595	600	605
Gly Glu Val Ala Thr Ile Ala Asn Gly Lys Val Asn Pro Ser Gln Ser		
610	615	620
Thr Glu Glu Ala Thr Glu Ala Thr Glu Val Pro Asp Pro Gly Pro Ser		
625	630	635
Glu Pro Glu Thr Ala Thr Leu Arg Pro Gly Pro Leu Thr Glu His Val		
645	650	655
Phe Thr Asp Pro Ala Pro Thr Pro Ser Ser Gly Pro Gln Pro Gly Ser		
660	665	670
Glu Asn Gly Pro Glu Pro Asp Ser Ser Ser Thr Arg Pro Glu Pro Glu		
675	680	685
Pro Ser Gly Asp Pro Thr Gly Ala Gly Ser Ser Ala Ala Pro Thr Met		
690	695	700
Trp Leu Gly Ala Gln Asn Gly Trp Leu Tyr Val His Ser Ala Val Ala		
705	710	715
Asn Trp Lys Lys Cys Leu His Ser Ile Lys Leu Lys Asp Ser Val Leu		
725	730	735
Ser Leu Val His Val Lys Gly Arg Val Leu Val Ala Leu Ala Asp Gly		
740	745	750
Thr Leu Ala Ile Phe His Arg Gly Glu Asp Gly Gln Trp Asp Leu Ser		
755	760	765
Asn Tyr His Leu Met Asp Leu Gly His Pro His His Ser Ile Arg Cys		
770	775	780
Met Ala Val Val Tyr Asp Arg Val Trp Cys Gly Tyr Lys Asn Lys Val		
785	790	795
His Val Ile Gln Pro Lys Thr Met Gln Ile Glu Lys Ser Phe Asp Ala		
805	810	815
His Pro Arg Arg Glu Ser Gln Val Arg Gln Leu Ala Trp Ile Gly Asp		
820	825	830
Gly Val Trp Val Ser Ile Arg Leu Asp Ser Thr Leu Arg Leu Tyr His		
835	840	845
Ala His Thr His Gln His Leu Gln Asp Val Asp Ile Glu Pro Tyr Val		
850	855	860
Ser Lys Met Leu Gly Thr Gly Lys Leu Gly Phe Ser Phe Val Arg Ile		

865                      870                      875                      880  
 Thr Ala Leu Leu Val Ala Gly Ser Arg Leu Trp Val Gly Thr Gly Asn  
                                  885                      890                      895  
 Gly Val Val Ile Ser Ile Pro Leu Thr Glu Thr Val Val Leu His Arg  
                                  900                      905                      910  
 Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly  
                                  915                      920                      925  
 Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser  
                                  930                      935                      940  
 Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln  
 945                      950                      955                      960  
 Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val  
                                  965                      970                      975  
 Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp  
                                  980                      985                      990  
 Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu  
                                  995                      1000                      1005  
 Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr  
                                  1010                      1015                      1020  
 Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly  
 1025                      1030                      1035                      1040  
 Ala Gly Asp Met Ser Gln Val Lys Pro Val Leu Ser Lys Ala Glu Arg  
                                  1045                      1050                      1055  
 Ser His Ile Ile Val Trp Gln Val Ser Tyr Thr Pro Glu  
                                  1060                      1065

<210> 4963  
 <211> 1575  
 <212> DNA  
 <213> Homo sapiens

<400> 4963  
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 120  
 aagtgccacc cggtcactt cctgaactca cggggccctgg gcgtcatgga caagagcact  
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 gccatcccca aagccagctc ttctgagtct ctttcggcca aaacctgcag cttatttctg  
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 420  
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 540  
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 600  
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&lt;210&gt; 4964

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4964

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Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
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&lt;210&gt; 4966

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4966

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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4970

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

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65	70	75	80
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Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys			
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&lt;210&gt; 4971

&lt;211&gt; 2939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4971

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<211> 558

<212> PRT

<213> Homo sapiens

<400> 4972

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Leu	Gly	His	Leu	Ser	Ile	Lys	Phe	Glu	Asp	His	Tyr	Val	Ile	Thr	Ser	
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<212> DNA
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240
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 <213> Homo sapiens

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 Glu Lys Lys Phe Met Ala Asp Cys Pro His Thr Ile Gly Val Glu Phe  
 35 40 45  
 Gly Thr Arg Ile Ile Glu Val Ser Gly Gln Lys Ile Lys Leu Gln Ile  
 50 55 60  
 Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ala Val Thr Arg Ser Tyr  
 65 70 75 80  
 Tyr Arg Gly Ala Ala Gly Ala Leu Met Val Tyr Asp Ile Thr Arg Arg  
 85 90 95  
 Ser Thr Tyr Asn His Leu Ser Ser Trp Leu Thr Asp Ala Arg Asn Leu  
 100 105 110  
 Thr Asn Pro Asn Thr Val Ile Ile Leu Ile Gly Asn Lys Ala Asp Leu  
 115 120 125  
 Glu Ala Gln Arg Asp Val Thr Tyr Glu Glu Ala Lys Gln Phe Ala Glu  
 130 135 140  
 Glu Asn Gly Leu Leu Phe Leu Glu Ala Ser Ala Lys Thr Gly Glu Asn  
 145 150 155 160  
 Val Glu Asp Ala Phe Leu Glu Ala Ala Lys Lys Ile Tyr Gln Asn Ile  
 165 170 175  
 Gln Asp Gly Ser Leu Asp Leu Asn Ala Ala Glu Ser Gly Val Gln His  
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&lt;210&gt; 4976

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4976

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		20					25					30			
Gly	Asp	Glu	Ile	Gln	Ile	Leu	Ser	Asn	Leu	Val	Met	Glu	Glu	Leu	Leu
		35				40					45				
Pro	Thr	Leu	Gln	Thr	Asp	Leu	Leu	Pro	Lys	Met	Lys	Gly	Lys	Lys	Asn
	50				55				60						
Asp	Arg	Lys	Arg	Thr	Trp	Leu	Gly	Leu	Leu	Glu	Glu	Ala	Tyr	Thr	Leu
65				70				75						80	
Val	Gln	His	Gln	Val	Ser	Glu	Gly	Leu	Ser	Ala	Leu	Lys	Glu	Glu	Cys
		85					90					95			
Arg	Ala	Leu	Thr	Lys	Gly	Leu	Glu	Gly	Thr	Ile	Arg	Ser	Asp	Met	Asp
		100					105					110			
Gln	Ile	Val	Asn	Ser	Lys	Asn	Tyr	Leu	Ile	Gly	Lys	Ile	Lys	Ala	Met
	115					120						125			
Val	Ala	Gln	Pro	Ala	Glu	Lys	Ser	Cys	Leu	Glu	Ser	Val	Gln	Pro	Phe

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Asn Phe Gln Thr Thr Lys Asp Ser Val Gln Leu Lys Glu His Leu Asp
      180              185              190
Arg Leu Met Asn Leu Pro Leu His Ser Val Lys Met Glu Pro Cys Tyr
      195              200              205
Thr Lys Val Asn Leu Leu His Glu Arg Leu Gln Asp Leu Lys Ser Arg
      210              215              220
Phe Arg Phe Pro His Ile Asp Leu Val Val Gln Arg Thr Gln Asn Tyr
225              230              235              240
Met Gln Glu Leu Met Glu Asn Ala Val Phe Thr Phe Glu Gln Leu Leu
      245              250              255
Ser Pro His Leu Gln Gly Glu Ala Ser Lys Thr Ala Phe Ser Ile Glu
      260              265              270
Lys Val Lys Leu Arg Val Leu Lys Gln Tyr Asp Tyr Asp Ser Ser Thr
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Ile Arg Lys Lys Ile Phe Gln Glu Ala Leu
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&lt;210&gt; 4977

&lt;211&gt; 3309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4977

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&lt;210&gt; 4978

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4978

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Asp	Lys	Gly	Glu	Asn	Glu	Leu	Thr	Gly	Ser	Ala	Ser	Glu	Glu	Ser	Gln
			20					25					30		
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
			50			55					60				
Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
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Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
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Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
			100					105					110		
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

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Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp
      165      170      175
Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys
      180      185      190
His Leu Gly Tyr Glu Leu Gln Gly Ala Lys Met Leu Thr Cys Ile Asn
      195      200      205
Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro
      210      215      220
Cys Gly Gly Ala Val His Asn Ala Thr Ile Gly Arg Val Leu Ser Pro
225      230      235      240
Ser Tyr Pro Glu Asn Thr Asn Gly Ser Gln Phe Cys Ile Trp Thr Ile
      245      250      255
Glu Ala Pro Glu Gly Gln Lys Leu His Leu His Phe Glu Arg Leu Leu
      260      265      270
Leu His Asp Lys Asp Arg Met Thr Val His Ser Gly Gln Thr Asn Lys
      275      280      285
Ser Ala Leu Leu Tyr Asp Ser Leu Gln Thr Glu Ser Val Pro Phe Glu
      290      295      300
Gly Leu Leu Ser Glu Gly Asn Thr Ile Arg Ile Glu Phe Thr Ser Asp
305      310      315      320
Gln Ala Arg Ala Ala Ser Thr Phe Asn Ile Arg Phe Glu Ala Phe Glu
      325      330      335
Lys Gly His Cys Tyr Glu Pro Tyr Ile Gln Asn Gly Asn Phe Thr Thr
      340      345      350
Ser Asp Pro Thr Tyr Asn Ile Gly Thr Ile Val Glu Phe Thr Cys Asp
      355      360      365
Pro Gly His Ser Leu Glu Gln Gly Pro Ala Ile Ile Glu Cys Ile Asn
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Val Arg Asp Pro Tyr Trp Asn Asp Thr Glu Pro Leu Cys Arg Ala Met
385      390      395      400
Cys Gly Gly Glu Leu Ser Ala Val Ala Gly Val Val Leu Ser Pro Asn
      405      410      415
Trp Pro Glu Pro Tyr Val Glu Gly Glu Asp Cys Ile Trp Lys Ile His
      420      425      430
Val Gly Glu Lys Arg Ile Phe Leu Asp Ile Gln Phe Leu Asn Leu
      435      440      445
Ser Asn Ser Asp Ile Leu Thr Ile Tyr Asp Gly Asp Glu Val Met Pro
      450      455      460
His Ile Leu Gly Gln Tyr Leu Gly Asn Ser Gly Pro Gln Lys Leu Tyr
465      470      475      480
Ser Ser Thr Pro Asp Leu Thr Ile Gln Phe His Ser Asp Pro Ala Gly
      485      490      495
Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val
      500      505      510
Ser Arg Asn Asp Ser Cys Ser Asp Leu Pro Glu Ile Gln Asn Gly Trp
      515      520      525
Lys Thr Thr Ser His Thr Glu Leu Val Arg Gly Ala Arg Ile Thr Tyr
      530      535      540
Gln Cys Asp Pro Gly Tyr Asp Ile Val Gly Ser Asp Thr Leu Thr Cys

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545                      550                      555                      560  
 Gln Trp Asp Leu Ser Trp Ser Ser Asp Pro Pro Phe Cys Glu Lys Ile  
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 Met Tyr Cys Thr Asp Pro Gly Glu Val Asp His Ser Thr Arg Leu Ile  
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 Ser Asp Pro Val Leu Leu Val Gly Thr Thr Ile Gln Tyr Thr Cys Asn  
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 Glu Thr Gly Thr Pro Ile Trp Thr Ser Arg Leu Pro His Cys Val Ser  
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 Glu Glu Ser Leu Ala Cys Asp Asn Pro Gly Leu Pro Glu Asn Gly Tyr  
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 Gln Ile Leu Tyr Lys Arg Leu Tyr Leu Pro Gly Glu Ser Leu Thr Phe  
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 Glu Thr Ser Leu Glu Gly Gly Asn Met Ala Leu Ala Ile Phe Ile Pro  
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 Val Leu Ile Ile Ser Leu Leu Leu Gly Gly Ala Tyr Ile Tyr Ile Thr  
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 Arg Cys Arg Tyr Tyr Ser Asn Leu Arg Leu Pro Leu Met Tyr Ser His  
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 Pro Tyr Ser Gln Ile Thr Val Glu Thr Glu Phe Asp Asn Pro Ile Tyr  
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 Glu Thr Gly Gly Thr Gln Lys Val  
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&lt;210&gt; 4979

&lt;211&gt; 1865

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4979

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1865

&lt;210&gt; 4980

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

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 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn  
 35 40 45  
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys  
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 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr  
 65 70 75 80  
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val  
 85 90 95  
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala  
 100 105 110  
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln  
 115 120 125  
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu  
 130 135 140  
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp  
 145 150 155 160  
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys  
 165 170 175  
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser  
 180 185 190  
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly  
 195 200 205  
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro  
 210 215 220  
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys  
 225 230 235 240  
 Ser Leu Thr Ser Leu Lys Ser Asn Asp Tyr Leu Ala Ser Pro Thr Thr  
 245 250 255  
 Glu Met Thr Ser Pro Gly Leu Thr Pro Ser  
 260 265

&lt;210&gt; 4981

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

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&lt;210&gt; 4982

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 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Leu Ser  
 35 40 45  
 Ser Trp Asp Tyr Arg Cys Ser Pro Pro His Pro Ala Asn Phe Cys Ile  
 50 55 60  
 Phe Ser Arg Asp Gly Val Ser Pro Cys  
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 <212> DNA  
 <213> Homo sapiens

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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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			20					25					30		
Gly	Ser	Phe	Leu	Ala	Arg	Ala	Lys	Phe	Ile	Pro	Leu	Ile	Thr	Val	Lys
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Ser	Cys	Leu	Asp	Leu	Leu	Val	Asn	Trp	Leu	His	Ile	Tyr	Leu	Asn	Asn
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Phe	Tyr	Ser	Ala	Cys	Gln	Ala	Val	Phe	Tyr	Thr	Phe	Val	Phe	Arg	His
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Cys	Thr	Asn	Pro	Leu	Asp	Thr	Phe	Phe	Pro	Phe	Asp	Pro	Cys	Val	Leu
		180					185					190			
Lys	Arg	Ser	Lys	Lys	Phe	Ile	Asp	Pro	Ile	Tyr	Gln	Val	Trp	Glu	Asp
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Ile	Val	Glu	Asp	Glu	Asp	Asp	Phe	Leu	Lys	Gly	Glu	Ile	Pro	Gln	
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245

250

255

&lt;210&gt; 4985

&lt;211&gt; 5695

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4985

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&lt;210&gt; 4986

&lt;211&gt; 1239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4986

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Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
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Ser	Tyr	Leu	Ile	Thr	Phe	Glu	Lys	His	Asp	Glu	Trp	Leu	Ser	Cys	Ala

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Pro	Lys	Thr	Arg	Pro	Gln	Asn	Gly	Ser	Ile	Ile	Leu	Tyr	Asn	Arg	Lys				
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Lys	Val	Lys	Tyr	Arg	Lys	Asp	Gly	Tyr	Leu	Trp	Lys	Lys	Arg	Lys	Asp				
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Gly	Lys	Thr	Thr	Arg	Glu	Asp	His	Met	Lys	Leu	Lys	Val	Gln	Gly	Met				
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Glu	Pro	Val	Ser	Trp	Gln	Cys	Leu	Tyr	Gly	Cys	Tyr	Val	His	Ser	Ser				
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Ile	Val	Pro	Thr	Phe	His	Arg	Arg	Cys	Tyr	Trp	Leu	Leu	Gln	Asn	Pro				
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Asp	Ile	Val	Leu	Val	His	Tyr	Leu	Asn	Val	Pro	Ala	Leu	Glu	Asp	Cys				
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Gly	Lys	Gly	Cys	Ser	Pro	Ile	Phe	Cys	Ser	Ile	Ser	Ser	Asp	Arg	Arg				
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Glu	Trp	Leu	Lys	Trp	Ser	Arg	Glu	Glu	Leu	Leu	Gly	Gln	Leu	Lys	Pro				
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Met	Phe	His	Gly	Ile	Lys	Trp	Ser	Cys	Gly	Asn	Gly	Thr	Glu	Glu	Phe				
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Ser	Val	Glu	His	Leu	Val	Gln	Gln	Ile	Leu	Asp	Thr	His	Pro	Thr	Lys				
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Gly	Ser	Leu	Thr	His	Lys	Cys	Ser	Ser	Thr	Lys	His	Arg	Ile	Ile	Ser				
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Pro	Lys	Val	Glu	Pro	Arg	Ala	Leu	Thr	Leu	Thr	Ser	Ile	Pro	His	Pro				
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Gly	Phe	Ala	Glu	Pro	Leu	Glu	Ile	Arg	Pro	Ser	Pro	Pro	Thr	Ser	Arg				
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Glu	Gln	Arg	Ala	Gly	Gly	Leu	Thr	Pro	Thr	Arg	His	Leu	Ala	Pro	Gln				
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Val	Ser	Pro	Asp	Phe	Pro	Glu	Ala	Glu	Ala	Ala	His	Thr	Pro	Cys	Ser				
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Ala	Leu	Glu	Pro	Ala	Ala	Ala	Leu	Glu	Pro	Gln	Ala	Ala	Ala	Arg	Gly				
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Asp Leu Met Gly Glu Leu Ile Ser Asp Glu Ala Pro Ser Ile Pro Ala				
545	550	555	560	
Pro Thr Pro Gln Leu Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser				
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Pro Glu Trp Ser Tyr Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly				
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Pro Trp Thr Glu Ala Ala Glu His Tyr Ser Cys Val Phe Asp His Ile				
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Ala Val Pro Ala Ser Leu Val Gln Pro Gly Val Leu Arg Cys Tyr Cys				
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Pro Ala His Glu Val Gly Leu Val Ser Leu Gln Val Ala Gly Arg Glu				
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Gly Pro Leu Ser Ala Ser Val Leu Phe Glu Tyr Arg Ala Arg Arg Phe				
645	650	655		
Leu Ser Leu Pro Ser Thr Gln Leu Asp Trp Leu Ser Leu Asp Asp Asn				
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Gln Phe Arg Met Ser Ile Leu Glu Arg Leu Glu Gln Met Glu Lys Arg				
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Met Ala Glu Ile Ala Ala Ala Gly Gln Val Pro Cys Gln Gly Pro Asp				
690	695	700		
Ala Pro Pro Val Gln Asp Glu Gly Gln Gly Pro Gly Phe Glu Ala Arg				
705	710	715	720	
Val Val Val Leu Val Glu Ser Met Ile Pro Arg Ser Thr Trp Lys Gly				
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Pro Glu Arg Leu Ala His Gly Ser Pro Phe Arg Gly Met Ser Leu Leu				
740	745	750		
His Leu Ala Ala Ala Gln Gly Tyr Ala Arg Leu Ile Glu Thr Leu Ser				
755	760	765		
Gln Trp Arg Ser Val Glu Thr Gly Ser Leu Asp Leu Glu Gln Glu Val				
770	775	780		
Asp Pro Leu Asn Val Asp His Phe Ser Cys Thr Pro Leu Met Trp Ala				
785	790	795	800	
Cys Ala Leu Gly His Leu Glu Ala Ala Val Leu Leu Phe Arg Trp Asn				
805	810	815		
Arg Gln Ala Leu Ser Ile Pro Asp Ser Leu Gly Arg Leu Pro Leu Ser				
820	825	830		
Val Ala His Ser Arg Gly His Val Arg Leu Ala Arg Cys Leu Glu Glu				
835	840	845		
Leu Gln Arg Gln Glu Pro Ser Val Glu Pro Pro Phe Ala Leu Ser Pro				
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Pro Ser Ser Ser Pro Asp Thr Gly Leu Ser Ser Val Ser Ser Pro Ser				
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Glu Leu Ser Asp Gly Thr Phe Ser Val Thr Ser Ala Tyr Ser Ser Ala				
885	890	895		
Pro Asp Gly Ser Pro Pro Pro Ala Pro Leu Pro Ala Ser Glu Met Thr				
900	905	910		
Met Glu Asp Met Ala Pro Gly Gln Leu Ser Ser Gly Val Pro Glu Ala				
915	920	925		
Pro Leu Leu Leu Met Asp Tyr Glu Ala Thr Asn Ser Lys Gly Pro Leu				
930	935	940		
Ser Ser Leu Pro Ala Leu Pro Pro Ala Ser Asp Asp Gly Ala Ala Pro				

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 Ile Ser Leu Ala Lys Gln Ile Ile Glu Ala Thr Pro Glu Arg Ile Lys  
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 Arg Glu Asp Phe Val Gly Leu Pro Glu Ala Gly Ala Ser Met Arg Glu  
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 Arg Thr Gly Ala Val Gly Leu Ser Glu Thr Met Ser Trp Leu Ala Ser  
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 Tyr Leu Glu Asn Val Asp His Phe Pro Ser Ser Thr Pro Pro Ser Glu  
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 Leu Pro Phe Glu Arg Gly Arg Leu Ala Val Pro Ser Ala Pro Ser Trp  
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 Ala Leu Leu Thr Leu Ser Asp His Glu Gln Arg Glu Leu Tyr Glu Ala  
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 Ala Arg Val Ile Gln Thr Ala Phe Arg Lys Tyr Lys Gly Arg Arg Leu  
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 Lys Glu Gln Gln Glu Val Ala Ala Ala Val Ile Gln Arg Cys Tyr Arg  
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 Lys Tyr Lys Gln Leu Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys  
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 Lys Met Thr Gln Ala Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr  
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 Tyr Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile  
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 Gln Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg  
                                  1170                      1175                      1180  
 Thr Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys  
                                  1185                      1190                      1195                      1200  
 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys  
                                  1205                      1210                      1215  
 Arg His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu  
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 Pro Gln Pro Gly Leu Ala Thr  
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&lt;210&gt; 4987

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4987

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<212> PRT  
<213> Homo sapiens

<400> 4988  
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Pro Leu Glu Ala Lys Gly Leu Ala Thr Gln Gly Ala Ser Leu Pro Leu  
50 55 60  
Leu Pro Thr Val Thr Cys Val Ser Ile Lys Ser Trp Lys Met Glu Cys  
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<212> DNA  
<213> Homo sapiens

<400> 4989  
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&lt;210&gt; 4990

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4990

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Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
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&lt;210&gt; 4991

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 828

<210> 4992  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

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 Thr Val Met Leu Gln  
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<210> 4993  
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 <212> DNA  
 <213> Homo sapiens

<400> 4993

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&lt;210&gt; 4994

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4994

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 Thr Asn Cys Pro Pro Lys Glu Gln Pro Gly Asp Leu Phe Asn Glu Asp  
 50 55 60  
 Trp Asp Ser Glu Leu Lys Ala Asp Gln Gly Asn Pro Tyr Asp Ala Asp  
 65 70 75 80  
 Asp Ile Gln Glu Ser Ile Ser Gln Glu Leu Lys Pro Trp Val Cys Cys  
 85 90 95  
 Ala Pro Gln Gly Asp Met Ile Tyr Asp Pro Ser Trp His His Pro Pro  
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<213> Homo sapiens

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<400> 4996  
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 His Asn Leu Lys Glu Leu Arg Glu Arg Val Leu Lys Gly Lys Tyr Arg  
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 Val Pro Phe Tyr Met Ser Thr Asp Cys Glu Ser Ile Leu Arg Arg Phe  
 305 310 315 320  
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 325 330 335  
 Asp Lys Trp Ile Asn Ile Gly Tyr Glu Gly Glu Glu Leu Lys Pro Tyr

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<213> Homo sapiens
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&lt;210&gt; 5000

&lt;211&gt; 307

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5000

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Gly	His	Lys													
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&lt;210&gt; 5001

&lt;211&gt; 3427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5001

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&lt;210&gt; 5002

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5002

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&lt;210&gt; 5003

&lt;211&gt; 3729

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5003

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&lt;210&gt; 5004

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 <213> Homo sapiens

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Ser Ser Pro Ser Ser Pro Ser Ser Asp Gly Lys Gln Lys Thr Val Tyr
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<210> 5006

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5006

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&lt;210&gt; 5008

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5008

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Gly	Asn	Ser	Tyr	Ala	Ser	Thr	Pro	Glu	Leu	Arg	Arg	Thr	Arg	Leu	Glu
			20					25					30		
Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
		35				40					45				
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50				55					60					
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
65				70					75					80	
Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85					90					95		
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
			100				105						110		
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
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Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
	130					135				140					
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
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Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

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 Lys Glu Pro Lys Leu Thr Gly Leu Ser Glu Ile Ser Gln Arg Leu Leu  
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 Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln  
 210 215 220  
 Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr  
 225 230 235 240  
 Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu  
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 Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val  
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 Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala  
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 Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val Ser Glu  
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 Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met  
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 Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro  
 370 375 380  
 Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp  
 385 390 395 400  
 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp  
 405 410 415  
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu  
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 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val  
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&lt;210&gt; 5009

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5009

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180



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<210> 5010

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5010

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			20					25					30		
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35				40						45			
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50					55				60					
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65					70					75				80	
Glu	Lys	Leu	Leu	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys	
			85					90					95		
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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<210> 5011

<211> 3431

<212> DNA

<213> Homo sapiens

<400> 5011

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2040

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&lt;210&gt; 5012

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5012

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Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val
 20           25           30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35           40           45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50           55           60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65           70           75           80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85           90           95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
 100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
 115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
 130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
 145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
 165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
 180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
 195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
 210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
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Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
 245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
 260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
 275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
 290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
 305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
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Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
 340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
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Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
 370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
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Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
 405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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 Thr Pro Ser Gly Ile Leu Thr Pro His Ala Leu Gly Ser Arg Asn Ser  
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 Pro Gly Ser Gln Val Ala Ser Asn Pro Arg Gln Ala Ala Tyr Glu Met  
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 Arg Met Gln Asn Asn Ser Ser Pro Ser Ile Ser Pro Asn Thr Ser Phe  
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 Thr Ser Asp Gly Ser Pro Ser Pro Leu Gly Gly Ile Lys Arg Lys Ala  
 485 490 495  
 Glu Asp Ser Asp Ser Glu Pro Glu Pro Glu Asp Asn Val Arg Leu Trp  
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 Glu Ala Gly Trp Lys Gln Arg Tyr Tyr Lys Asn Lys Phe Asp Val Asp  
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 Ala Ala Asp Glu Lys Phe Arg Arg Lys Val Val Gln Ser Tyr Val Glu  
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 Gly Leu Cys Trp Val Leu Arg Tyr Tyr Tyr Gln Gly Cys Ala Ser Trp  
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 Lys Trp Tyr Tyr Pro Phe His Tyr Ala Pro Phe Ala Ser Asp Phe Glu  
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 Ile Ile Asp Phe Tyr Pro Glu Asp Phe Ala Ile Asp Leu Asn Gly Lys  
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 Arg Leu Arg Ala Ala Leu Glu Glu Val Tyr Pro Asp Leu Thr Pro Glu  
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 Glu Thr Arg Arg Asn Ser Leu Gly Gly Asp Val Leu Phe Val Gly Lys  
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 His His Pro Leu His Asp Phe Ile Leu Glu Leu Tyr Gln Thr Gly Ser  
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 Thr Glu Pro Val Glu Val Pro Pro Glu Leu Cys His Gly Ile Gln Gly  
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 Lys Phe Ser Leu Asp Glu Glu Ala Ile Leu Pro Asp Gln Ile Val Cys  
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 Ser Pro Val Pro Met Leu Arg Asp Leu Thr Gln Asn Thr Val Val Ser  
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 Thr Leu Gly His Val Met Pro Arg Gly Ser Gly Thr Gly Ile Tyr Ser  
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 <213> Homo sapiens

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&lt;210&gt; 5014

&lt;211&gt; 675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5014

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 35          40          45
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 50          55          60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
 65          70          75          80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
 85          90          95
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
180          185          190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
260          265          270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
275          280          285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
290          295          300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
305          310          315          320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
325          330          335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
340          345          350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
355          360          365
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
370          375          380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
385          390          395          400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu

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      405      410      415
Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala
      420      425      430
Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln
      435      440      445
Gln Glu Ala Ser Ala Leu Arg Glu Glu Thr Glu Ala Trp Ala Arg Pro
      450      455      460
His Glu Ser Leu Ala Arg Glu Glu Ala Leu Thr Ala Leu Gly Lys Leu
465      470      475      480
Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile
      485      490      495
Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val
      500      505      510
Arg Arg Gly Leu Ser His Gly Ala Gln Arg Leu Leu Cys Val Ala Leu
      515      520      525
Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu
530      535      540
Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His
545      550      555      560
Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile
      565      570      575
Leu Gly Leu Val Leu Pro Leu Ala Tyr Gly Phe Gln Pro Asp Leu Val
      580      585      590
Leu Val Ala Leu Gly Pro Gly His Gly Leu Gln Gly Pro His Ala Ala
595      600      605
Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala
610      615      620
Leu Leu Glu Glu Val Ser Trp Ala Gly Trp Arg Cys Cys Gly Val Gly
625      630      635      640
Arg Gly Glu Gly Pro Val Thr Ala Ser Val Phe Ala Pro Gly Pro Glu
      645      650      655
Leu His Thr Pro Ala Ser Arg Asp Pro Gly Pro Gly Ala Glu Trp Arg
660      665      670
Gly Thr Ser
675

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&lt;210&gt; 5015

&lt;211&gt; 1360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5015

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agccgcagga agcagctcac ctccaccgg tttccgttca gccgccgga gctgctgaag
240
gaatgggtgc tgaacatcgg ccggggcaac ttcaagccca agcagcacac ggtcatctgc
300
tccgagcact tccggccaga gtgcttcagc gcctttggaa accgcaagaa cctaaagcac
360

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aatgccgtgc ccacggtgtt cgcctttcag gacccacac agcagggtgag ggagaacaca  
 420  
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 480  
 gcgggggccc gagaggacag tcttgggaga aacatggaca ctgcacttga agagcttcag  
 540  
 ttgcccccaa atgccgaagg ccacgtaaaa cagggtctgc caggagggcc gcaagcaaca  
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 1360

&lt;210&gt; 5016

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5016

Met	Ser	Ala	Pro	Trp	Arg	Arg	Ala	Arg	Pro	Val	Thr	Thr	Ser	Gln	Arg
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Pro	Arg	Pro	Ser	Pro	Gln	Val	Pro	Pro	Leu	Ser	Ala	Gly	Pro	Ala	Ala
		20						25				30			
Ala	Ala	Ile	Phe	Val	Gly	Gly	Ser	Gln	Ala	Trp	Leu	Glu	Met	Pro	Lys
		35				40					45				
Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
	50				55			60							
Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65				70				75						80	
Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
			85				90						95		
Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe	Ser	Ala	Phe

	100		105		110										
Gly	Asn	Arg	Lys	Asn	Leu	Lys	His	Asn	Ala	Val	Pro	Thr	Val	Phe	Ala
	115				120				125						
Phe	Gln	Asp	Pro	Thr	Gln	Gln	Val	Arg	Glu	Asn	Thr	Asp	Pro	Ala	Ser
	130				135				140						
Glu	Arg	Gly	Asn	Ala	Ser	Ser	Ser	Gln	Lys	Glu	Lys	Val	Leu	Pro	Glu
145					150				155					160	
Ala	Gly	Ala	Gly	Glu	Asp	Ser	Pro	Gly	Arg	Asn	Met	Asp	Thr	Ala	Leu
			165						170					175	
Glu	Glu	Leu	Gln	Leu	Pro	Pro	Asn	Ala	Glu	Gly	His	Val	Lys	Gln	Val
			180						185					190	
Ser	Pro	Arg	Arg	Pro	Gln	Ala	Thr	Glu	Ala	Val	Gly	Arg	Pro	Thr	Gly
	195						200					205			
Pro	Ala	Gly	Leu	Arg	Arg	Thr	Pro	Asn	Lys	Gln	Pro	Ser	Asp	His	Ser
	210					215					220				
Tyr	Ala	Leu	Leu	Asp	Leu	Asp	Ser	Leu	Lys	Lys	Lys	Leu	Phe	Leu	Thr
225					230					235				240	
Leu	Lys	Glu	Asn	Glu	Lys	Leu	Arg	Lys	Arg	Leu	Gln	Ala	Gln	Arg	Leu
			245						250					255	
Val	Met	Arg	Arg	Met	Ser	Ser	Arg	Leu	Arg	Ala	Cys	Lys	Gly	His	Arg
		260						265					270		
Gly	Leu	Gln	Ala	Arg	Leu	Gly	Pro	Glu	Gln	Gln	Ser				
	275						280								

&lt;210&gt; 5017

&lt;211&gt; 785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5017

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<210> 5018  
 <211> 63  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Leu Pro Ala Leu Pro Ser Asp Ala Gly Val Gly Trp Gly Ala Glu Gly  
 35 40 45  
 Pro Pro Ser Ile Ala Ala Val Ser Gln Ser His Gly Arg Arg Ser  
 50 55 60

<210> 5019  
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 <212> DNA  
 <213> Homo sapiens

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 120  
 cgccgaatgc cagatggagg ttatcctcat ggtcctccag gccattagg ccttctggga  
 180  
 gtccgaccag gcatgcctcc tcagcctcag gggcctgcac ccttacgtcg tectgactca  
 240  
 tctgatgacc gttatgtaat gacaaaacat gccaccattt atccaactga agaggagtta  
 300  
 caggcagttc agaaaattgt ttctattact gaacgtgctt taaaactcgt ttcagacagt  
 360  
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 480  
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 660  
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 720  
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 780  
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 840

tgtgtgatta tcatacgcat tcttcgagac ctctgtcagc gagttccaac ttggtctgat  
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1920  
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1980  
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2340  
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2460

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 2640  
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 2760  
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 2766

<210> 5020

<211> 433

<212> PRT

<213> Homo sapiens

<400> 5020

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Glu	Met	Arg	Arg	Tyr	Glu	Glu	Asp	Met	Tyr	Trp	Arg	Arg	Met	Glu	Glu
		20					25						30		
Glu	Gln	His	His	Trp	Asp	Asp	Arg	Arg	Arg	Met	Pro	Asp	Gly	Gly	Tyr
		35				40						45			
Pro	His	Gly	Pro	Pro	Gly	Pro	Leu	Gly	Leu	Leu	Gly	Val	Arg	Pro	Gly
	50				55			60							
Met	Pro	Pro	Gln	Pro	Gln	Gly	Pro	Ala	Pro	Leu	Arg	Arg	Pro	Asp	Ser
65				70				75						80	
Ser	Asp	Asp	Arg	Tyr	Val	Met	Thr	Lys	His	Ala	Thr	Ile	Tyr	Pro	Thr
			85					90						95	
Glu	Glu	Glu	Leu	Gln	Ala	Val	Gln	Lys	Ile	Val	Ser	Ile	Thr	Glu	Arg
		100					105						110		
Ala	Leu	Lys	Leu	Val	Ser	Asp	Ser	Leu	Ser	Glu	His	Glu	Lys	Asn	Lys
	115					120					125				
Asn	Lys	Glu	Gly	Asp	Asp	Lys	Lys	Glu	Gly	Gly	Lys	Asp	Arg	Ala	Leu
	130					135					140				
Lys	Gly	Val	Leu	Arg	Val	Gly	Val	Phe	Ala	Lys	Gly	Leu	Leu	Leu	Arg
145				150				155						160	
Gly	Asp	Arg	Asn	Val	Asn	Leu	Val	Leu	Leu	Cys	Ser	Glu	Lys	Pro	Ser
		165						170						175	
Lys	Thr	Leu	Leu	Ser	Arg	Ile	Ala	Glu	Asn	Leu	Pro	Lys	Gln	Leu	Ala
	180						185						190		
Phe	Ile	Ser	Pro	Glu	Lys	Tyr	Asp	Ile	Lys	Cys	Ala	Val	Ser	Glu	Ala
	195					200					205				
Ala	Ile	Ile	Leu	Asn	Ser	Cys	Val	Glu	Pro	Lys	Met	Gln	Val	Thr	Ile
	210					215					220				
Thr	Leu	Thr	Ser	Pro	Ile	Ile	Arg	Glu	Glu	Asn	Met	Arg	Glu	Gly	Asp
225				230				235						240	
Val	Thr	Ser	Gly	Met	Val	Lys	Asp	Pro	Pro	Asp	Val	Leu	Asp	Arg	Gln
		245						250					255		
Lys	Cys	Leu	Asp	Ala	Leu	Ala	Ala	Leu	Arg	His	Ala	Lys	Trp	Phe	Gln
	260							265					270		
Ala	Arg	Ala	Asn	Gly	Leu	Gln	Ser	Cys	Val	Ile	Ile	Ile	Arg	Ile	Leu

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      275              280              285
Arg Asp Leu Cys Gln Arg Val Pro Thr Trp Ser Asp Phe Pro Ser Trp
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Ala Met Glu Leu Leu Val Glu Lys Ala Ile Ser Ser Ala Ser Ser Pro
      305              310              315              320
Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser
      325              330              335
Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys
      340              345              350
Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp
      355              360              365
Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln
      370              375              380
Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg
      385              390              395              400
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg Asp Ser Asp Gly Val
      405              410              415
Asp Gly Phe Glu Ala Glu Gly Lys Lys Asp Lys Lys Asp Tyr Asp Asn
      420              425              430
Phe

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&lt;210&gt; 5021

&lt;211&gt; 494

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5021

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494

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&lt;210&gt; 5022

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5022

Met Thr Cys Val Glu Gln Asp Lys Leu Gly Gln Ala Phe Glu Asp Ala

```

      1           5           10           15
Phe Glu Val Leu Arg Gln His Ser Thr Gly Asp Leu Gln Tyr Ser Pro
      20           25           30
Asp Tyr Lys Asn Tyr Leu Ala Leu Ile Asn His Arg Pro His Val Lys
      35           40           45
Gly Asn Ser Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu Pro Val Tyr
      50           55           60
Asn Trp Arg Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe Glu Gly
      65           70           75           80
Asn Ile His Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu Val Gln
      85           90           95
Pro Thr Ile Leu Gln Gln Lys Gly Gly Lys Gly Arg Lys Lys Leu Arg
      100          105          110
Leu Phe Glu Tyr Leu His Glu Ser Leu Cys Asn Pro
      115          120

```

&lt;210&gt; 5023

&lt;211&gt; 3482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

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960

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&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5024

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&lt;210&gt; 5025

&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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 <213> Homo sapiens

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 Tyr Lys Asp Ala Phe Met Lys Ala Asn Pro Gly Tyr Lys Trp Cys Pro  
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&lt;210&gt; 5030

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5030

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Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
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Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
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Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
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 <213> Homo sapiens

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<210> 5033  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn
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Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr
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Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala
      65           70           75           80
Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu
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Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu
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Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser
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Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu
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Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe
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Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro
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Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp
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Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly
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Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg
      260          265          270
Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro
      275          280          285
Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg
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Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly
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Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His
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Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu
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Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser
      355          360          365
Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln
      370          375          380
Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala
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Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr
      405          410          415
Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

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 450                      455                      460  
 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Leu Gln Ala Asp  
 465                      470                      475                      480  
 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr  
 485                      490                      495  
 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro  
 500                      505                      510  
 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly  
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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

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Asp	Ala	Gly	Ile	Phe	Phe	Thr	Arg	Ala	Val	Gln	Phe	Thr	Glu	Glu	Lys
			20					25					30		
Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
		35					40				45				
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
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Pro Thr Thr Pro Tyr Gly Lys Thr Leu Ile Lys Val Ala Glu Ala Glu
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Lys Gln Leu Gly Ala Ala Glu Arg Asp Phe Ile His Thr Ala Ser Ile
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Ser Phe Leu Thr Pro Leu Arg Asn Phe Leu Glu Gly Asp Trp Lys Thr
145          150          155          160
Ile Ser Lys Glu Ser Arg Leu Leu Gln Asn Arg Arg Leu Asp Leu Asp
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Ala Cys Lys Ala Arg Leu Lys Lys Ala Lys Ala Ala Glu Ala Lys Ala
      180          185          190
Thr Leu Trp Asn Asp Glu Val Asp Lys Ala Glu Gln Glu Leu Arg Val
      195          200          205
Ala Gln Thr Glu Phe Asp Arg Gln Ala Glu Val Thr Arg Leu Leu Leu
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Glu Gly Ile Ser Ser Thr His Val Asn His Leu Arg Cys Leu His Glu
225          230          235          240
Phe Val Lys Ser Gln Thr Thr Tyr Tyr Ala Gln Cys Tyr Arg His Met
      245          250          255
Leu Asp Leu Gln Lys Gln Leu Gly Ser Ser Gln Gly Ala Ile Ser Arg
      260          265          270
His Leu Arg Gly His His Arg Ala Arg Leu Pro Pro Leu Ser Ser Thr
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Ser Pro Thr Thr Ala Ala Ala Thr Met Pro Val Val Pro Ser Val Ala
      290          295          300
Ser Leu Ala Pro Pro Gly Glu Ala Ser Leu Cys Leu Glu Glu Val Ala
305          310          315          320
Pro Pro Ala Ser Gly Thr Arg Lys Ala Arg Val Leu Tyr Asp Tyr Glu
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Ala Ala Asp Ser Ser Glu Leu Ala Leu Leu Ala Asp Glu Leu Ile Thr
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Val Tyr Ser Leu Pro Gly Met Asp Pro Asp Trp Leu Ile Gly Glu Arg
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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 Val Val Val Lys Ser Val Asn Trp Ile Cys Ser Arg Gly Leu Asn His  
 260 265 270  
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 275 280 285  
 Leu Leu Tyr Tyr Thr Glu Ile Lys Trp Leu Ser Arg Gly Leu Val Leu



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&lt;210&gt; 5040

&lt;211&gt; 616

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5040

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 Tyr Leu Gly Ser Gly Gly Trp Arg Phe Ile Arg Val Phe Ile Lys Thr  
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 Ile Arg Arg Asp Ile Phe Gly Gly Leu Val Leu Leu Lys Val Lys Ala  
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 Lys Val Arg Gln Cys Leu Gln Glu Arg Arg Thr Val Pro Ile Leu Phe  
 65 70 75 80  
 Ala Ser Thr Val Arg Arg His Pro Asp Lys Thr Ala Leu Ile Phe Glu  
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Arg Arg Asp Ala Leu Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala
      165      170      175
Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala
      180      185      190
Ser Pro Asp Pro Ser Leu Ser Leu Phe Cys Ser Gly Ser Trp Glu Pro
      195      200      205
Gly Ala Val Pro Pro Ser Thr Glu His Leu Asp Pro Leu Leu Lys Asp
      210      215      220
Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys
225      230      235      240
Leu Phe Tyr Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala
      245      250      255
Ile Val Val His Ser Arg Tyr Tyr Arg Met Ala Ala Leu Val Tyr Tyr
      260      265      270
Gly Phe Arg Met Arg Pro Asn Asp Ile Val Tyr Asp Cys Leu Pro Leu
      275      280      285
Tyr His Ser Ala Gly Asn Ile Val Gly Ile Gly Gln Cys Leu Leu His
      290      295      300
Gly Met Thr Val Val Ile Arg Lys Lys Phe Ser Ala Ser Arg Phe Trp
305      310      315      320
Asp Asp Cys Ile Lys Tyr Asn Cys Thr Ile Val Gln Tyr Ile Gly Glu
      325      330      335
Leu Cys Arg Tyr Leu Leu Asn Gln Pro Pro Arg Glu Ala Glu Asn Gln
      340      345      350
His Gln Val Arg Met Ala Leu Gly Asn Ala Ser Gly Ser Pro Ser Gly
      355      360      365
Pro Thr Phe Pro Ala Ala Ser Thr Tyr Pro Arg Trp Leu Ser Ser Thr
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Gly Pro Glu Cys Asn Cys Ser Leu Gly Asn Phe Asp Ser Gln Val Gly
385      390      395      400
Ala Cys Gly Phe Asn Ser Arg Ile Leu Ser Phe Val Tyr Pro Ile Arg
      405      410      415
Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp
      420      425      430
Gly Val Cys Ile Pro Cys Gln Pro Gly Glu Pro Gly Gln Leu Val Gly
      435      440      445
Arg Ile Ile Gln Lys Asp Pro Leu Arg Arg Phe Asp Gly Tyr Leu Asn
      450      455      460
Gln Gly Ala Asn Asn Lys Lys Ile Ala Lys Asp Val Phe Lys Lys Gly
465      470      475      480
Asp Gln Ala Tyr Leu Thr Gly Asp Val Leu Val Met Asp Glu Leu Gly
      485      490      495
Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly
      500      505      510
Glu Asn Val Ser Thr Thr Glu Val Glu Gly Thr Leu Ser Arg Leu Leu
      515      520      525
Asp Met Ala Asp Val Ala Val Tyr Gly Val Glu Val Pro Gly Thr Glu
      530      535      540
Gly Arg Ala Gly Met Ala Ala Val Ala Ser Pro Thr Gly Asn Cys Asp

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Leu	Glu	Arg	Phe	Ala	Gln	Val	Leu	Glu	Lys	Glu	Leu	Pro	Leu	Tyr	Ala
		565		570		575									
Arg	Pro	Ile	Phe	Leu	Arg	Leu	Leu	Pro	Glu	Leu	His	Lys	Thr	Gly	Thr
		580		585		590									
Tyr	Lys	Phe	Gln	Lys	Thr	Glu	Leu	Arg	Lys	Glu	Ala	Phe	Asp	Pro	Ala
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Ile	Val	Lys	Thr	Arg	Cys	Ser	Ile								
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&lt;210&gt; 5041

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5041

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&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr

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Ala Leu Val Tyr His Glu Asp Met Thr Ala Thr Arg Leu Leu Trp Asp
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Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu
35           40           45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
50           55           60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
65           70           75           80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
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Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
180          185          190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
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Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
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Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
290          295          300
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Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
325          330          335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
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355          360          365
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
370          375          380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
385          390          395          400
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405          410          415
Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala
420          425          430
Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln

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 Gln Glu Ala Ser Ala Leu Arg Glu Glu Thr Glu Ala Trp Ala Arg Pro  
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 485 490 495  
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 Arg Arg Gly Leu Ser His Gly Ala Gln Arg Leu Leu Cys Val Ala Leu  
 515 520 525  
 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu  
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 Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His  
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 580 585 590  
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 595 600 605  
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 625 630 635 640  
 Val Leu Asn Gly Glu Ala Pro Pro Ser Leu Gly Pro Ser Ser Val Ala  
 645 650 655  
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 <212> DNA  
 <213> Homo sapiens

<400> 5043  
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 420  
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 480



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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

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Lys Ile His Pro Glu Arg Thr Pro Ser Glu Lys Leu Leu Ala Val Lys
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Glu Phe Glu Ser His Leu Asp Lys Leu Asp Asn Glu Lys Lys Asp Leu
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Ile Gln Ser Asp Ile Ala Ala Leu His His Phe Tyr Ser Lys His Leu
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Gln Glu Lys Met Ser Ser Val Phe Glu Asp Ser Asn Val Tyr Met Leu
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Glu Gly Ala Leu Gln Tyr Gly Gln Lys Ile Ile Lys Pro Tyr Ser Lys
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&lt;210&gt; 5049

&lt;211&gt; 2422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5049

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<212> PRT

<213> Homo sapiens

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615

&lt;210&gt; 5051

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5051

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&lt;211&gt; 433

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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<213> Homo sapiens

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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			20					25					30		
Asp	Val	Thr	Val	Ile	Val	Glu	Asp	Arg	Lys	Phe	Arg	Ala	His	Lys	Asn
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		290						295						300	
Ser	Ile	Asn	Leu	Leu	Val	Gln	Asn	Gln	Gln	Thr	Pro	Asn	Ser	Ala	Ile
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Leu	Thr	Gly	Asn	Lys	Ala	Asn	Glu	Glu	Glu	Glu	Glu	Glu	Ile	Ile	Asp
		325						330						335	
Asp	Asp	Asp	Asp	Thr	Ile	Ser	Ser	Ser	Pro	Asp	Ser	Ala	Val	Ser	Asn
		340						345						350	
Thr	Ser	Leu	Val	Pro	Gln	Ala	Asp	Thr	Ser	Gln	Asn	Thr	Ser	Phe	Asp
		355						360						365	
Gly	Ser	Leu	Ile	Gln	Lys	Met	Gln	Ile	Pro	Thr	Leu	Leu	Gln	Glu	Pro
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Asp	Pro	Gly	Val	Gly	Ser	Lys	His	Leu	Met	Glu	Gly	Gln	Lys	Ile	Ile
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Thr	Leu	Asp	Thr	Ala	Thr	Glu	Ile	Glu	Gly	Leu	Ser	Thr	Gly	Cys	Lys
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Val	Tyr	Ala	Asn	Ile	Gly	Glu	Asp	Thr	Tyr	Asp	Ile	Val	Ile	Pro	Val
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		515					520					525								
Lys	Val	Phe	Pro	Leu	Ala	Glu	Tyr	Arg	Thr	Lys	His	Glu	Ile	His	His					
	530					535					540									
Thr	Gly	Glu	Arg	Arg	Tyr	Gln	Cys	Leu	Ala	Cys	Gly	Lys	Ser	Phe	Ile					
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Gln	Ile	Arg	Gln	Tyr	Ala	Tyr	His	Ser	Asp	Arg	Ser	Ser	Thr	Ile	Pro					
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	610					615					620									
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625					630				635						640					
Glu	Asp	Ile	Phe	Ile	Gln	Gln	Glu	Asn	Asp	Ser	Ile	Phe	Lys	Gln	Asn					
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<211> 673
<212> DNA
<213> Homo sapiens
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<210> 5058

<211> 122  
 <212> PRT  
 <213> Homo sapiens

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 Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala  
 35 40 45  
 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu  
 50 55 60  
 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile  
 65 70 75 80  
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu  
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 <211> 480  
 <212> DNA  
 <213> Homo sapiens

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 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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Leu	Pro	His	Thr	Leu	Pro	Ala	Phe	Leu	Pro	His	Cys	Leu	Glu	Asp	Leu
	35				40				45						
Leu	Arg	Ala	Trp	Val	Leu	Val	Ile	Gly	Ser	Ala	Pro	Arg	Ala	Gly	Cys
	50				55				60						
Arg	Leu	Ser	Leu	Glu	Lys	Asp	Ser	Gln	Leu	Val	Ser	Leu	Cys	Ile	His
	65				70				75					80	
Ala	Leu	Cys	Pro	Glu	Arg	Pro	Ser	Gln	Ser	Ala	Arg	Ala	Val	Ile	Thr
		85						90					95		
Arg	Tyr	His	Ala	Leu	Gly	Gly	Leu	Thr	His	Arg	Glu	Cys	Leu	Ser	Val
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Leu	Glu														

&lt;210&gt; 5061

&lt;211&gt; 2462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5061

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2462

&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
100          105          110
Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5064

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 20           25           30
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 35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
 50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
 65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
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Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
 100           105           110

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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5068

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&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5070

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&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5072

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5073

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<210> 5076  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 5076  
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 Cys Trp Asp Gly Gly Gly Ser Gly Asn Phe Ser Ser Pro Gly Thr Leu  
 35 40 45  
 Arg Glu Thr Glu Val Ile Thr Ala Val Leu Glu Leu Gly Arg Gly Gly  
 50 55 60  
 Asp Gln Val Thr Ala Asp Gln Lys Ser Leu Asn Ile Asn Ala Met Glu  
 65 70 75 80  
 Arg Glu Leu Ala Leu Ser Leu Arg Val Ala  
 85 90

<210> 5077  
 <211> 2352  
 <212> DNA  
 <213> Homo sapiens

<400> 5077  
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 240  
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 360

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1980

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 2340  
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 2352

<210> 5078

<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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			20					25					30		
Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
		35					40					45			
Asp	Gly	Ser	Ala	Ile	Gln	Val	Leu	Lys	Glu	Trp	Asn	Met	Thr	Gly	Lys
	50					55					60				
Lys	Lys	Asn	Asn	Lys	Arg	Lys	Arg	Ser	Lys	Ser	Lys	Gln	His	Gln	Gly
65					70					75				80	
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
			85						90					95	
Gln	Pro	Gln	Pro	Pro	Gln	Ile	Gln	Asn	Gly	Pro	Met	Asn	Gly	Cys	Glu
			100					105					110		
Lys	Asp	Ser	Ser	Ser	Thr	Asp	Ser	Ala	Asn	Glu	Lys	Pro	Ala	Leu	Ile
	115						120					125			
Pro	Arg	Glu	Lys	Lys	Ile	Ser	Ile	Leu	Glu	Glu	Pro	Ser	Lys	Ala	Leu
	130					135					140				
Arg	Gly	Val	Thr	Glu	Gly	Asn	Arg	Leu	Leu	Gln	Gln	Lys	Leu	Ser	Leu
145					150					155				160	
Asp	Gly	Asn	Pro	Lys	Pro	Ile	His	Gly	Thr	Thr	Glu	Arg	Ser	Asp	Gly
			165						170					175	
Leu	Gln	Trp	Ser	Ala	Glu	Gln	Pro	Cys	Asn	Pro	Ser	Lys	Pro	Lys	Ala
		180						185					190		
Lys	Thr	Ser	Pro	Val	Lys	Ser	Asn	Thr	Pro	Ala	Ala	His	Leu	Glu	Ile
	195						200					205			
Lys	Pro	Asp	Glu	Leu	Ala	Lys	Lys	Arg	Gly	Pro	Asn	Ile	Glu	Lys	Ser
	210					215					220				
Val	Lys	Asp	Leu	Gln	Arg	Cys	Thr	Val	Ser	Leu	Thr	Arg	Tyr	Arg	Val
225					230					235				240	
Met	Ile	Lys	Glu	Glu	Val	Asp	Ser	Ser	Val	Lys	Lys	Ile	Lys	Ala	Ala
			245						250					255	
Phe	Ala	Glu	Leu	His	Asn	Cys	Ile	Ile	Asp	Lys	Glu	Val	Ser	Leu	Met



```

      260      265      270
Ala Glu Met Asp Lys Val Lys Glu Glu Ala Met Glu Ile Leu Thr Ala
      275      280      285
Arg Gln Lys Lys Ala Glu Glu Leu Lys Arg Leu Thr Asp Leu Ala Ser
      290      295      300
Gln Met Ala Glu Met Gln Leu Ala Glu Leu Arg Ala Glu Ile Lys His
305      310      315      320
Phe Val Ser Glu Arg Lys Tyr Asp Glu Glu Leu Gly Lys Ala Ala Arg
      325      330      335
Phe Ser Cys Asp Ile Glu Gln Leu Lys Ala Gln Ile Met Leu Cys Gly
      340      345      350
Glu Ile Thr His Pro Lys Asn Asn Tyr Ser Ser Arg Thr Pro Cys Ser
      355      360      365
Ser Leu Leu Pro Leu Leu Asn Ala His Ala Ala Thr Ser Gly Lys Gln
      370      375      380
Ser Asn Phe Ser Arg Lys Ser Ser Thr His Asn Lys Pro Ser Glu Gly
385      390      395      400
Lys Ala Ala Asn Pro Lys Met Val Ser Ser Leu Pro Ser Thr Ala Asp
      405      410      415
Pro Ser His Gln Thr Met Pro Ala Asn Lys Gln Asn Gly Ser Ser Asn
      420      425      430
Gln Arg Arg Arg Phe Asn Pro Gln Tyr His Asn Asn Arg Leu Asn Gly
      435      440      445
Pro Ala Lys Ser Gln Gly Ser Gly Asn Glu Ala Glu Pro Leu Gly Lys
      450      455      460
Gly Asn Ser Arg His Glu His Arg Arg Gln Pro His Asn Gly Phe Arg
465      470      475      480
Pro Lys Asn Lys Gly Gly Ala Lys Asn Gln Glu Ala Ser Leu Gly Met
      485      490      495
Lys Thr Pro Glu Ala Pro Ala His Ser Glu Lys Pro Arg Arg Arg Gln
      500      505      510
His Ala Ala Asp Thr Ser Glu Ala Arg Pro Phe Arg Gly Ser Val Gly
      515      520      525
Arg Val Ser Gln Cys Asn Leu Cys Pro Thr Arg Ile Glu Val Ser Thr
      530      535      540
Asp Ala Ala Val Leu Ser Val Pro Ala Val Thr Leu Val Ala
545      550      555

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&lt;210&gt; 5079

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5079

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120
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180
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240
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300

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 420  
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 1320  
 aaaaaaaaaa aaaaaaaaa  
 1338

&lt;210&gt; 5080

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

Gly Ala Gly Pro Trp Glu Ala Phe Pro Asp Gly Ile Gly Arg Arg Ser  
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 Arg Arg Ala Arg Leu Pro Gln Tyr Lys Arg Pro Pro Gly Arg Val Gly  
 20 25 30  
 Gly Gly Asp Ser Gly Arg Arg Asn Met Ala Val Ala Asp Leu Ala Leu  
 35 40 45  
 Ile Pro Asp Val Asp Ile Asp Ser Asp Gly Val Phe Lys Tyr Val Leu  
 50 55 60  
 Ile Arg Val His Ser Ala Pro Arg Ser Gly Ala Pro Ala Ala Glu Ser  
 65 70 75 80  
 Lys Glu Ile Val Arg Gly Tyr Lys Trp Ala Glu Tyr His Ala Asp Ile

```

      85              90              95
Tyr Asp Lys Val Ser Gly Asp Met Gln Lys Gln Gly Cys Asp Cys Glu
      100              105              110
Cys Leu Gly Gly Gly Arg Ile Ser His Gln Ser Gln Asp Lys Lys Ile
      115              120              125
His Val Tyr Gly Tyr Ser Met Val Ser Arg Ser Pro Val Pro Pro Cys
      130              135              140
Arg Arg Pro Gln Tyr Gln Leu Arg Gly Pro Pro Glu Pro Ala Ala Leu
145              150              155              160
Thr Arg Gly Pro Ser
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<210> 5081  
 <211> 561  
 <212> DNA  
 <213> Homo sapiens

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<400> 5081
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180
tctgcatctg ctgcgccctg cagggtcctg ggtgcccage cagttctcat gccaccaag
240
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360
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420
gccaacaggg atgaattcta cagccgaccc tccaagttag ctgacttctg ggggaacaac
480
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atcagcacac gtggcaagct g
561

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<210> 5082  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

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<400> 5082
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Ala Ala Gln Ala Trp His Cys Pro Pro Gly Gln Gly His Ser Val Trp
20     25     30
Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln
35     40     45
Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
50     55     60
Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

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65					70					75					80
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
				85					90				95		
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100				105						110		

&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

```

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ccatggcaga gccagaccga ctccagattca gactctgagg gaggagccgc tggtagagaa
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1260

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 1856

&lt;210&gt; 5084

&lt;211&gt; 396

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5084

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Arg	Ala	Ser	Ala	Pro	Arg	Pro	Trp	Gln	Ser	Gln	Thr	Asp	Ser	Asp	Ser
			20					25				30			
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
			35				40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
			50			55				60					
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
					70				75					80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
				85				90						95	
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
			100				105					110			
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
			115				120					125			
Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
			130			135					140				
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
				150					155					160	
Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
				165				170						175	
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
			180				185					190			
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
			195				200				205				
His	Glu	Tyr	Pro	Leu	Ser	Trp	Met	Lys	Glu	Lys	Ile	Phe	Ser	Glu	Val

210	215	220
Thr Pro Lys Cys Glu Asp Cys Gln Ser Leu Val Lys Pro Asp Ile Val		
225	230	235
Phe Phe Gly Glu Ser Leu Pro Ala Arg Phe Phe Ser Cys Met Gln Ser		240
	245	250
Asp Phe Leu Lys Val Asp Leu Leu Leu Val Met Gly Thr Ser Leu Gln		255
	260	265
Val Gln Pro Phe Ala Ser Leu Ile Ser Lys Ala Pro Leu Ser Thr Pro		270
	275	280
Arg Leu Leu Ile Asn Lys Glu Lys Ala Gly Gln Ser Asp Pro Phe Leu		285
	290	295
Gly Met Ile Met Gly Leu Gly Gly Gly Met Asp Phe Asp Ser Lys Lys		300
305	310	315
Ala Tyr Arg Asp Val Ala Trp Leu Gly Glu Cys Asp Gln Gly Cys Leu		320
	325	330
Ala Leu Ala Glu Leu Leu Gly Trp Lys Lys Glu Leu Glu Asp Leu Val		335
	340	345
Arg Arg Glu His Ala Ser Ile Asp Ala Gln Ser Gly Ala Gly Val Pro		350
	355	360
Asn Pro Ser Thr Ser Ala Ser Pro Lys Lys Ser Pro Pro Pro Ala Lys		365
	370	375
Asp Glu Ala Arg Thr Thr Glu Arg Glu Lys Pro Gln		380
385	390	395

&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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&lt;210&gt; 5090

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5090

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5091

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&lt;210&gt; 5092

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<400> 5092

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Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
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His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
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Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
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Leu Pro Gly Leu Glu Ser Gly Glu Gly Gly Arg Pro Arg Gly Gly Glu
      195             200             205
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Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
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Ser Tyr Gln Ile Leu Ser Thr Ser Gln Glu Leu Lys Asp Thr Asp Leu
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Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
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Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
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Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
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Arg Leu Ser Gly Arg Tyr Pro Lys Val Gln Glu Leu Leu Gln Gly Lys
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Arg Ala Arg Cys Cys Leu Leu Pro Ala Pro Gly Arg Arg Met Asn
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Pro Asp Glu Met Ala Ala Gln Leu His Asp Leu Arg Lys Val Glu Ala
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Ala Lys Arg Glu Phe Glu Glu Tyr Val Arg Gln Gln Asp Val Ala Thr
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Lys Arg Ile Phe Ser Ala Leu Arg Val Leu Pro Asp Thr Met Arg Asn
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Leu Leu Cys Lys Gly Arg Asp Gln Thr Leu Glu Ala Leu Glu Ala Glu
          515          520          525
Leu Gln Ala Thr Ala Lys Ala Phe Met Asp Ser Tyr Thr Met Arg Phe
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Cys Gly His Leu Ala Ala Val Gly Gly Ala Val Gly Ala Gly Leu Met
545          550          555          560
Gly Leu Ala Gly Gly Val Val Gly Ala Gly Met Ala Ala Ala Leu
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Ala Ala Glu Ala Gly Met Val Ala Ala Gly Ala Ala Val Gly Ala Thr
          580          585          590
Gly Ala Ala Val Val Gly Gly Gly Val Gly Ala Gly Leu Ala Ala Thr
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Val Gly Cys Met Glu Lys Glu Glu Asp Glu Arg Leu Leu Glu Gly Asp
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5094

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

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 35 40 45  
 Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Leu

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Pro Ser Leu Ser Tyr Thr	Lys Trp Lys Cys Leu	Leu Tyr Cys Asn Gly		
65	70	75	80	
Val Leu Glu Pro Leu Tyr	Leu Cys Pro Asn Gly	Ala Arg Cys Ala Thr		
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Lys Ile Val Arg His Glu	Gly Thr Arg Thr Leu	Trp Ser Gly Leu Pro		
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Leu Tyr Ala Pro Met Val	Ala Gly Ala Leu Ala	Arg Leu Gly Thr Val		
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Thr Val Ile Ser Pro Leu	Glu Leu Met Arg Thr	Lys Leu Gln Ala Gln		
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His Val Ser Tyr Arg Glu	Leu Gly Ala Cys Val	Arg Thr Ala Val Ala		
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Gln Gly Gly Trp Arg Ser	Leu Trp Leu Gly Trp	Gly Pro Thr Ala Leu		
	210	215	220	
Arg Asp Val Pro Phe Ser	Val His Pro Pro Pro	Gln Ala Leu Tyr Trp		
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Phe Asn Tyr Glu Leu Val	Lys Ser Trp Leu Asn	Gly Leu Arg Pro Lys		
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Thr Val Ala Val Leu Thr	Leu Pro Phe Asp Val	Val Val Lys Thr Gln		
	275	280	285	
Arg Gln Val Ala Leu Gly	Ala Met Glu Ala Val	Arg Val Asn Pro Leu		
	290	295	300	
His Val Asp Ser Thr Trp	Leu Leu Leu Arg Arg	Ile Arg Ala Glu Ser		
	305	310	315	320
Gly Thr Lys Gly Leu Phe	Ala Gly Phe Leu Pro	Arg Ile Ile Lys Ala		
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Ala Pro Ser Cys Ala Ile	Met Ile Ser Thr Tyr	Glu Phe Gly Lys Ser		
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&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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 Arg Ala Gln Gln Gly Arg Leu Leu Arg Leu Pro Thr Ser Gln His Arg  
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&lt;210&gt; 5098

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5098

Met Ala Val Pro Gln Leu Gly Pro Ile Pro Val His Val Arg Thr Lys  
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 Gly Val Phe Ala Ile Met Leu Pro Thr Lys Ser Lys Glu Cys Trp Phe

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Pro Ser Phe Gln Pro Gln His Phe Gln Lys Ala Leu Phe Phe Leu Glu
      35      40      45
Thr Glu Ser Arg Cys Val Ser Gln Ala Gly Val Gln Arg Gly Asp Leu
      50      55      60
Ser Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Leu
      65      70      75      80
Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Val Pro Pro His Pro Ala
      85      90      95
Asn Phe Cys Ile Phe Ser Arg Asn Gly Val Ser Pro His Trp Pro Gly
      100      105      110
Trp Ser

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<210> 5099  
 <211> 801  
 <212> DNA  
 <213> Homo sapiens

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420
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480
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801

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<210> 5100  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 5100

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 Gly Pro Ser Ala Arg Pro Pro Pro Thr Pro Thr Trp Thr Gly Pro Gly  
 35 40 45  
 Leu Gly Thr Leu Ser Cys Val Lys Glu Asn Lys Gly Lys Glu Thr Ser  
 50 55 60  
 Leu Cys Ala Pro Ser Leu Pro Asn Lys His Glu Ser Asp Val Leu Gln  
 65 70 75 80  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 85 90 95  
 Lys Lys Lys Lys Lys Lys  
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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 120  
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 420  
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 1680  
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 1711

&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

Met Ala Lys Leu Leu Ser Cys Val Leu Gly Pro Arg Leu Tyr Lys Ile  
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 Tyr Arg Glu Arg Asp Ser Glu Arg Ala Pro Ala Ser Val Pro Glu Thr  
 20 25 30  
 Pro Thr Ala Val Thr Ala Pro His Ser Ser Ser Trp Asp Thr Tyr Tyr  
 35 40 45  
 Gln Pro Arg Ala Leu Glu Lys His Ala Asp Ser Ile Leu Ala Leu Ala  
 50 55 60  
 Ser Val Phe Trp Ser Ile Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe  
 65 70 75 80  
 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe  
 85 90 95  
 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Leu Ala Gly Val Ala Cys  
 100 105 110  
 Leu Arg Gly Ile Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile  
 115 120 125  
 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg  
 130 135 140  
 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe  
 145 150 155 160  
 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

165 170 175  
 Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr  
 180 185 190  
 Ala Asp Thr Leu Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr  
 195 200 205  
 Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly  
 210 215 220  
 Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly  
 225 230 235 240  
 Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu  
 245 250 255  
 Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly  
 260 265 270  
 Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn  
 275 280 285  
 Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly  
 290 295 300  
 Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly  
 305 310 315 320  
 Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln  
 325 330 335  
 Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr  
 340 345 350  
 Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr  
 355 360 365  
 Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val  
 370 375 380  
 Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr  
 385 390 395 400  
 Arg Thr Val Arg Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys  
 405 410 415  
 Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile  
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 Ile Thr Thr Thr  
 435

&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

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420  
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tcagggtgtg ctggcggatc gggggctctg tcccatagcg cgaggcgcgg aggcgaagca  
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1980

99  
1982

<210> 5104  
<211> 167  
<212> PRT  
<213> Homo sapiens

<400> 5104  
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Ser Leu Leu His Cys Arg Ser Ser Leu Asn Leu Pro Arg His Pro Pro  
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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp  
35 40 45  
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
50 55 60  
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro  
65 70 75 80  
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
85 90 95  
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe  
100 105 110  
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys  
115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
130 135 140  
Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu  
145 150 155 160  
Tyr Glu Arg Ala Met Cys Phe  
165

<210> 5105  
<211> 1359  
<212> DNA  
<213> Homo sapiens

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240  
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360  
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<210> 5106
<211> 178
<212> PRT
<213> Homo sapiens
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			20					25					30				
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile		
	35						40					45					
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr		
	50					55					60						
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val		
65				70						75					80		
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu		
			85						90					95			
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu		
			100					105					110				
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala		
	115						120					125					
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile		



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<210> 5108  
<211> 83  
<212> PRT  
<213> Homo sapiens

<400> 5108  
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Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe  
35 40 45  
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
50 55 60  
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val  
65 70 75 80  
Ser Pro Cys

<210> 5109  
<211> 651  
<212> DNA  
<213> Homo sapiens

<400> 5109  
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120  
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa  
180  
gatcagtttg atgaaatcat agtagatata gccacaaaac gtaagcagta tcccagaaaag  
240  
atcctggaat gtgtcatcaa aaccataaaa gcaaaacaag aaattctgaa gcagtaccac  
300  
cctgttgtag atccactgga cctaaaatat gaccctgac cagttctcaa cgggaatgct  
360  
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420  
acttcggccc ctcatatgga aaatttgaaa tgcagagggg aaacagtagc aaaggagatc  
480  
agtgaagcca tgaagtcctt gcctgcatta attgaacaag gagagggatt ttcccaagtt  
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ctcaggatgc agcctgttat ccacctccag aggattcacc aagaagtctt ttccagttgt  
600  
cataggaaac cagatgctaa acctgagaac ttataaacac agatagaaac c  
651

<210> 5110  
<211> 206  
<212> PRT



&lt;213&gt; Homo sapiens

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 20 25 30  
 Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu  
 35 40 45  
 Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys  
 50 55 60  
 Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala  
 65 70 75 80  
 Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp  
 85 90 95  
 Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe  
 100 105 110  
 Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe  
 115 120 125  
 Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr  
 130 135 140  
 Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile  
 145 150 155 160  
 Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile  
 165 170 175  
 His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys  
 180 185 190  
 Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr  
 195 200 205

&lt;210&gt; 5111

&lt;211&gt; 2247

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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660  
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720  
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1260  
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1320  
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1740  
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1800  
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1860  
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1920  
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1980  
agtctgtga ctcaggaatg ggggtagatc catgtcctcc actgtcccc attagtctg  
2040  
tccccttcac aatgagaagt gttttctggc aggccttagg taaagggtcg ggggagggg  
2100  
gagccttgta gggaggcctc tacacagaag aaagcagccc ccatgtccca gccacttctg  
2160

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 2247

<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

Ala	Lys	His	Phe	Pro	Ala	Gly	Gly	Gly	Asp	His	Arg	Glu	Arg	Pro	Gly
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Arg	Gly	Gly	Lys	Asp	Ala	Ser	Val	Ala	His	Glu	Val	Ala	Ser	Leu	Ala
			20					25					30		
Leu	Pro	Trp	Phe	Ala	Val	Val	Leu	Gly	Tyr	Arg	Glu	Arg	Pro	Arg	Val
		35					40					45			
Ser	Gly	Arg	Pro	Ser	Leu	Gly	Ala	Pro	Gln	Arg	Leu	Arg	Ala	Tyr	Gly
	50					55				60					
Gly	Arg	Lys	Gly	Leu	Glu	Ala	Ala	Pro	Trp	Val	Thr	Thr	Ala	Arg	Pro
65					70				75					80	
Thr	Phe	Pro	His	Val	Ala	Ala	Lys	Thr	Gly	Ser	Gly	Ala	Ser	Ile	Gly
				85					90					95	
Cys	Thr	Pro	Thr	Ser	Thr	Gln	Ala	Lys	Met	Val	Ser	Lys	Arg	Ile	Ala
			100					105					110		
Gln	Glu	Thr	Phe	Asp	Ala	Ala	Val	Arg	Glu	Asn	Ile	Glu	Glu	Phe	Ala
			115				120					125			
Met	Gly	Pro	Glu	Glu	Ala	Val	Lys	Glu	Ala	Val	Glu	Gln	Phe	Glu	Ser
	130					135					140				
Gln	Gly	Val	Asp	Leu	Ser	Asn	Ile	Val	Lys	Thr	Ala	Pro	Lys	Val	Ser
145					150					155				160	
Ala	Asp	Gly	Ser	Gln	Glu	Pro	Thr	His	Asp	Ile	Leu	Gln	Met	Leu	Ser
			165						170					175	
Asp	Leu	Gln	Glu	Ser	Val	Ala	Ser	Ser	Arg	Pro	Gln	Glu	Val	Ser	Ala
			180						185					190	
Tyr	Leu	Thr	Arg	Phe	Cys	Asp	Gln	Cys	Lys	Gln	Asp	Lys	Ala	Cys	Arg
	195						200					205			
Phe	Leu	Ala	Ala	Gln	Lys	Gly	Ala	Tyr	Pro	Ile	Ile	Phe	Thr	Ala	Arg
	210					215					220				
Lys	Leu	Ala	Thr	Ala	Gly	Asp	Gln	Gly	Leu	Leu	Gln	Ser	Leu	Asn	
225					230					235				240	
Ala	Leu	Ser	Val	Leu	Thr	Asp	Gly	Gln	Pro	Asp	Leu	Leu	Asp	Ala	Gln
			245						250					255	
Gly	Leu	Gln	Leu	Leu	Val	Ala	Thr	Leu	Thr	Gln	Asn	Ala	Asp	Glu	Ala
	260							265					270		
Asp	Leu	Thr	Cys	Ser	Gly	Ile	Arg	Cys	Val	Arg	His	Ala	Cys	Leu	Lys
	275						280					285			
His	Glu	Gln	Asn	Arg	Gln	Asp	Leu	Val	Lys	Ala	Gly	Val	Leu	Pro	Leu
	290					295					300				
Leu	Thr	Gly	Ala	Ile	Thr	His	His	Gly	His	His	Thr	Asp	Val	Val	Arg
305					310					315				320	
Glu	Ala	Cys	Trp	Ala	Leu	Arg	Val	Met	Thr	Phe	Asp	Asp	Asp	Ile	Arg
			325						330					335	
Val	Pro	Phe	Gly	His	Ala	His	Asn	His	Ala	Lys	Met	Ile	Val	Gln	Glu

```

          340          345          350
Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp
          355          360          365
Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala
          370          375          380
Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
385          390          395          400
Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
          405          410          415
Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
          420          425          430
Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
          435          440          445
Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
          450          455          460
Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
465          470          475          480
Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
          485          490          495
Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
          500          505          510
Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
          515          520          525
Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
          530          535          540
Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
545          550          555          560
Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg
          565          570          575
Gly Asn Leu Ala Pro
          580

```

&lt;210&gt; 5113

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5113

```

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60
ggcaccttga cccgctgctt gttctgctct cctttaaact ccatgcacct gacacctgta
120
attggcacgc agcgcggagc ctggcacctg cagtgtagac aactggcca ccgctcagtg
180
caagagggcc cctttgctaa tgtgcacagc tctttatgcc ttttttcta tgctttttg
240
gattggagca agagattttt tttccaagt aaagaacaat ttatgttcct aaatactttt
300
tttccttgac atgatgaagt tgagcaaggt ggctatagaa ctttttttct taattttatt
360
gcccaagtaa tgttctttac aaagtaggga aatacagata cataaaaaaga agactgccaa
420
tcccccgtaa tcccaccagt cgcateccta cccgctctta ggagattccg ga
472

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<210> 5114  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5114  
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 1 5 10 15  
 Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser  
 20 25 30  
 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
 65 70 75 80  
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn  
 85 90 95  
 Thr Phe Phe Pro  
 100

<210> 5115  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

<400> 5115  
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 120  
 tccaaagcct gcctggggat ttgtgcccaa gccagccca ggagggttag agaaagcaaa  
 180  
 ggtgtctacc agccgccgcc atcccagaag gaaagcctct tcccatgagt gcctgtgggt  
 240  
 gggcggtgag ctcaacaccc acaaagggca gaaggcctgg gggcagttag gtgatggtga  
 300  
 gggcatggga agcagatgct gctgaggggt ggtggaggga gaaatggaga cccagcaccc  
 360  
 agcaggggga gccaggtgac agcaggggaa gcagatggca gggccccagg cagtccagga  
 420  
 cccaggtct tgaaggtgg ggcaaggggg tcaggtcacg tcttgacatc cagcagtggc  
 480  
 tccgcttggt ctggtagccc actctgccc gccatgtccc accttggggt ctcccatgtc  
 540  
 agagagcagc tctgtctcag catcatgcag ttcctcagct gggcatagc tgtacatggg  
 600  
 gagcaggtgc atgcgcagcc ggtccaccgc cttttcttc tgtacataca ttaccacagc  
 660  
 caccaccacc ccgaccaggg tgatgaggaa gaaggcccc aacacatagc ccaccatgga  
 720  
 gtcgctgttg gcctgggggg cattgggcac agtgggtgta ctcatgacat cagcagccgg  
 780

agggctgggt ggtcagcatg ggcagtggcg cttegggagg gcgcctccac tgggctcccc  
 840  
 agtcgtatgc tcctcgtccc aggtcaaggg ggcagccag ggtggggagg gcgtcaggcc  
 900  
 gctgctagga tgcgggccag caacagcgga ncaggaggtg gttccacgg cgctgggnag  
 960  
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 1003

<210> 5116  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

<400> 5116  
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 20 25 30  
 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His  
 35 40 45  
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys  
 50 55 60  
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu  
 65 70 75 80  
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu  
 85 90 95  
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His  
 100 105 110  
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Glu Gly Pro  
 115 120 125  
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly  
 130 135 140  
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Arg Ala Gly Trp Ser  
 145 150 155 160  
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser  
 165 170 175  
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly  
 180 185 190  
 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly  
 195 200 205  
 Gly Ser His Gly Ala Gly Xaa Ala His Ala Gly Gly Gly Gly Val Gly  
 210 215 220  
 Gly Cys  
 225

<210> 5117  
 <211> 1180  
 <212> DNA  
 <213> Homo sapiens

<400> 5117  
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 120  
 agtgggaaaa gtgcaacagc gaacaccatc cttggagagg aaatctttga ttctagaatt  
 180  
 gctgcecaag ctgttaccaa gaactgtcaa aaagcatccc gggaatggca ggggagagac  
 240  
 cttcttgttg tagacactcc agggctcttt gacaccaagg agagcctgga caccacctgc  
 300  
 aaggaaatca gccgctgcat catctcctcc tgcccagggc cccatgctat tgcctagt  
 360  
 ctgctgctgg gccgctacac agaggaggag cagaaaaccg ttgcattgat caaggctgtc  
 420  
 tttgggaagt cagccatgaa gcacatggtc atcttgttca ctgcgaaaga agagttggag  
 480  
 ggccagagct tccatgactt catagcagat gcggatgtgg gcctaaaaag catcgtcaag  
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 600  
 gaaagtcaag tgcaggagtt ggtggagctg atagagaaaa tgggtcagtg caacgaaggg  
 660  
 gcttactttt ctgatgacat atacaaggac acagaggaaa ggctgaaaca acggaagag  
 720  
 gttttgagga aaatctacac tgaccaatta aatgaagaaa ttaaactagt agaagaggat  
 780  
 aagcataaat cagaggaaga aaaggagaaa gaaattaaat tactaaaatt aaaatatgat  
 840  
 gaaaaataa aaaatataag ggaagaagct gagagaaata tatttaaaga tgtttttaat  
 900  
 aggatttggg agatgctttc agaaatatgg cataggtttt tgcgaaatg taagttttat  
 960  
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 1020  
 aaatacctcc ttccccttag ctttattaag gtatcattga taaataaaaa taaatatgt  
 1080  
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 1140  
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 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Met	Ala	Glu	Ser	Glu	Asp	Arg	Ser	Leu	Arg	Ile	Val	Leu	Val	Gly	Lys
1				5					10					15	
Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
			20					25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35				40					45				
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
	50					55				60					
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

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65          70          75          80
Ile Ser Arg Cys Ile Ile Ser Ser Cys Pro Gly Pro His Ala Ile Val
          85          90          95
Leu Val Leu Leu Leu Gly Arg Tyr Thr Glu Glu Glu Gln Lys Thr Val
          100          105          110
Ala Leu Ile Lys Ala Val Phe Gly Lys Ser Ala Met Lys His Met Val
          115          120          125
Ile Leu Phe Thr Arg Lys Glu Glu Leu Glu Gly Gln Ser Phe His Asp
          130          135          140
Phe Ile Ala Asp Ala Asp Val Gly Leu Lys Ser Ile Val Lys Glu Cys
145          150          155          160
Gly Asn Arg Cys Cys Ala Phe Ser Asn Ser Lys Lys Thr Ser Lys Ala
          165          170          175
Glu Lys Glu Ser Gln Val Gln Glu Leu Val Glu Leu Ile Glu Lys Met
          180          185          190
Val Gln Cys Asn Glu Gly Ala Tyr Phe Ser Asp Asp Ile Tyr Lys Asp
          195          200          205
Thr Glu Glu Arg Leu Lys Gln Arg Glu Glu Val Leu Arg Lys Ile Tyr
          210          215          220
Thr Asp Gln Leu Asn Glu Glu Ile Lys Leu Val Glu Glu Asp Lys His
225          230          235          240
Lys Ser Glu Glu Glu Lys Glu Lys Glu Ile Lys Leu Leu Lys Leu Lys
          245          250          255
Tyr Asp Glu Lys Ile Lys Asn Ile Arg Glu Glu Ala Glu Arg Asn Ile
          260          265          270
Phe Lys Asp Val Phe Asn Arg Ile Trp Lys Met Leu Ser Glu Ile Trp
          275          280          285
His Arg Phe Leu Ser Lys Cys Lys Phe Tyr Ser Ser
          290          295          300

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<210> 5119  
 <211> 1450  
 <212> DNA  
 <213> Homo sapiens

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<400> 5119
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120
cttcctgtct gtactggaac catcacaggc ttttgaggaa ctacttttga accgttcccc
180
agagaggcat ttgccccagt agctatgatt ataatttgca atgacagcca cagtgatttc
240
atccttctgg gcttctctaa caagccacat ttggagaaga tactttttng gatcattttt
300
attttttatt ttttgactct tgcaggaaat atggcatag ttcttgtgtc cttgaaggat
360
ccaaaactcc acatccctat gtatttcttt ctttccaacc tttccttggt agacctctgt
420
ttgaccagca gctgtgttcc acagatgttg attaacttct ggggccaga aaagaccatc
480
agctacattg gctgtgccat tcaactctat gtttttttgt ggcttggggc cacggaatat
540

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 600  
 accatgatca tgcacccaaa actttgtctg cagctggcta tcttggcatg ggggactggc  
 660  
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 720  
 atggtggatg atgttgtttg tgaagtccca gctctgattc agctctccag tactgatact  
 780  
 acctacagtg aaattcagat gtctatcgcc agtgttgtcc tcttggatg gcccttgatc  
 840  
 attatccttt cctcttctgg tgctattgct aaggctgtgc tgagaattaa gtcaactgca  
 900  
 ggacagaaga aagcatttgg cacctgcac tctcaccttc ttgtggtttc tctcttttat  
 960  
 ggactgtca cagggtgtcta ctttcaacca aaaaatcact atcctcatga atggggcaaa  
 1020  
 tttctcactc ttttctacac tgtagtaacc ccaactctta atccctcat ctacactcta  
 1080  
 aggaacaagg aggtaaagg agcactaata agattgggga ggaggacctg ggattcccag  
 1140  
 aataactaac aagggttaaca tatgtttacc tttgtttaac ctaagaatag agaacaacct  
 1200  
 catcacaaaa agctggagat acacctccta agccaaaagt aggagagaaa gagctgcatt  
 1260  
 ctgttcaggt tgagatttca gtttccttca tcaatcaatt gggcccttaa attcttcata  
 1320  
 ttgtggattt agacacagta tgggtataaaa attaatatat ttaatagcta ttgtcttgaa  
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 1440  
 aaataaaata  
 1450

<210> 5120  
 <211> 314  
 <212> PRT  
 <213> Homo sapiens

<400> 5120  
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 1 5 10 15  
 Phe Ser Asn Lys Pro His Leu Glu Lys Ile Leu Phe Xaa Ile Ile Phe  
 20 25 30  
 Ile Phe Tyr Phe Leu Thr Leu Ala Gly Asn Met Val Ile Val Leu Val  
 35 40 45  
 Ser Leu Lys Asp Pro Lys Leu His Ile Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Leu Val Asp Leu Cys Leu Thr Ser Ser Cys Val Pro Gln  
 65 70 75 80  
 Met Leu Ile Asn Phe Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ile Gly  
 85 90 95  
 Cys Ala Ile Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Tyr  
 100 105 110  
 Val Leu Leu Val Val Met Ala Val Asp Cys Tyr Val Ala Val Cys His

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      115              120              125
Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu
      130              135              140
Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser
145              150              155              160
Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
      165              170              175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
      180              185              190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
      195              200              205
Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
      210              215              220
Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
225              230              235              240
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
      245              250              255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
      260              265              270
Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu
      275              280              285
Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu
      290              295              300
Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn
305              310

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<210> 5121  
 <211> 944  
 <212> DNA  
 <213> Homo sapiens

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<400> 5121
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120
atagtggagc tgcccactct agaggagctg aaagtagatg aggtgaaaat tagttctgct
180
gtgcttaaag ctgcggccca tcaactatgga gctcaatgtg ataagcccaa caaggagttt
240
atgctctgcc gctgggaaga gaaagatccg aggcgggtgt tagaggaagg caaactggtc
300
aacaagtgtg ctttggactt ctttaggcag ataaaacgtc actgtgcaga gccttttaca
360
gaatattgga cttgcattga ttatactggc cagcagttat ttcgtcactg tcgcaaacag
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600
ggcagccgct tttatttctg gaccaagtaa agatgggtcc gtggcccaca ctcggtcatg
660

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 780  
 ccatttctctg tccattaaaa tttttaaagg aaacggttgt attttattat gttttatgtg  
 840  
 accttttggc ctttaaagat gacttcccct tgcttttttc ttcttgggt cctgcctgtt  
 900  
 cctcttgctt tgctttaggc actcgtcat gtggctgggg atcc  
 944

<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

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1				5					10					15	
Glu	Val	Lys	Ile	Ser	Ser	Ala	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr
			20					25					30		
Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
		35					40					45			
Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
	50					55					60				
Lys	Cys	Ala	Leu	Asp	Phe	Phe	Arg	Gln	Ile	Lys	Arg	His	Cys	Ala	Glu
65				70					75					80	
Pro	Phe	Thr	Glu	Tyr	Trp	Thr	Cys	Ile	Asp	Tyr	Thr	Gly	Gln	Gln	Leu
			85					90					95		
Phe	Arg	His	Cys	Arg	Lys	Gln	Gln	Ala	Lys	Phe	Asp	Glu	Cys	Val	Leu
		100					105						110		
Asp	Lys	Leu	Gly	Trp	Val	Arg	Pro	Asp	Leu	Gly	Glu	Leu	Ser	Lys	Val
		115					120					125			
Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
	130				135						140				
Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
145				150					155					160	
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<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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 <212> PRT  
 <213> Homo sapiens

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<210> 5125  
 <211> 6244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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&lt;210&gt; 5126



<211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 5126  
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 Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala  
 35 40 45  
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln  
 50 55 60  
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu  
 65 70 75 80  
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly  
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<210> 5127  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
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Ala Ser Ser Thr Thr Ile Ser  
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<210> 5129  
<211> 745  
<212> DNA  
<213> Homo sapiens

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<210> 5130  
<211> 111  
<212> PRT  
<213> Homo sapiens

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Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly  
35 40 45  
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
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<210> 5131
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<212> DNA
<213> Homo sapiens
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<210> 5132
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<212> PRT
<213> Homo sapiens
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4313

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		100						105					110		
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Pro	Glu	Glu	Val	Glu	Ser	Val	His	Arg	Ile	Leu	Ala	Ala	Ile	Leu	His
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&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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&lt;210&gt; 5134

<211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 5134  
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 His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu  
 35 40 45  
 Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser  
 50 55 60  
 Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val  
 65 70 75 80  
 Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val  
 85 90 95  
 Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu  
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<210> 5135  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5136

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5136

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<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
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Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
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Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
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Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
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Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr
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Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
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Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
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180           185           190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
195           200           205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
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Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
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Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
260           265           270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys
275           280           285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
290           295           300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
305           310           315           320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
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Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
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Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

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Lys Asp Glu Ile Ser Val	Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
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 <212> DNA  
 <213> Homo sapiens

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 <212> PRT

<213> Homo sapiens

<400> 5142

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Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
      35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
      50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
      65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
      85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
      100          105          110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
      115          120          125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
      130          135          140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
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Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
      165          170          175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
      180          185          190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
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His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
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<210> 5143

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 5143

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&lt;210&gt; 5144

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

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  65              70              75              80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85              90              95
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys
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Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu
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Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met
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Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser
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&lt;210&gt; 5145

&lt;211&gt; 1885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5145

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 1860  
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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro	Ala	Thr	Ser	Glu	Lys	Glu	Ser	Ile	Leu	Leu	Phe	Pro	Asp	Leu	Arg
1				5					10					15	
Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
		20						25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

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      50              55              60
Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys
65              70              75              80
Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro
      85              90              95
Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr
      100              105              110
Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr
      115              120              125
Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly
      130              135              140
Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala
145              150              155              160
Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile
      165              170              175
Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro
      180              185              190
Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu
      195              200              205
Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly
      210              215              220
Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu
225              230              235              240
Ser Ile Val Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe
      245              250              255
Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met
      260              265              270
Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro
      275              280              285
Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser
      290              295              300
Gly Phe Leu Ile Phe Pro Ser Ala
305              310

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&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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ctttatactg ccaagaaaata cgcagtccca gccttggaag cacactgtgt agaatttttc
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accaaacatc ttagggcaga taatgccttt atgttactta ctcaggctcg attatttgat
420

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 2943

&lt;210&gt; 5148

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5148

Ala Arg Leu Phe Asp Glu Pro Gln Leu Ala Ser Leu Cys Leu Asp Thr  
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 Ile Asp Lys Ser Thr Met Asp Ala Ile Ser Ala Glu Gly Phe Thr Asp  
 20 25 30  
 Ile Asp Ile Asp Thr Leu Cys Ala Val Leu Glu Arg Asp Thr Leu Ser  
 35 40 45  
 Ile Arg Glu Ser Arg Leu Phe Gly Ala Val Val Arg Trp Ala Glu Ala  
 50 55 60  
 Glu Cys Gln Arg Gln Gln Leu Pro Val Thr Phe Gly Asn Lys Gln Lys  
 65 70 75 80  
 Val Leu Gly Lys Ala Leu Ser Leu Ile Arg Phe Pro Leu Met Thr Ile  
 85 90 95  
 Glu Glu Phe Ala Ala Gly Pro Ala Gln Ser Gly Ile Leu Ser Asp Arg  
 100 105 110  
 Glu Val Val Asn Leu Phe Leu His Phe Thr Val Asn Pro Lys Pro Arg

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      115      120      125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
      130      135      140
Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
145      150      155      160
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165      170      175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180      185      190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195      200      205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210      215      220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225      230      235      240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245      250      255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260      265      270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
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Ile Pro Glu Ile Ile Phe Tyr Thr
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<210> 5149  
 <211> 533  
 <212> DNA  
 <213> Homo sapiens

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<400> 5149
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120
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180
cagctcctac cagaggacct cagaaaggag ctctatgaac tttgggaaga gtacgagacc
240
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300
gcatctgaat atgaagacct tgaacacaaa cctgggagac tgcaagactt ctatgattcc
360
acagcaggaa aattcaatca ccctgagata gtccagcttg tttctgaact tgaggcagaa
420
agaagcacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
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533

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<210> 5150  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

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 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys  
 35 40 45  
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro  
 50 55 60  
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
 115 120 125  
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn  
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 Ile Ala Ala Ala Ala Ser Glu Pro His Ser  
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<210> 5151  
 <211> 2273  
 <212> DNA  
 <213> Homo sapiens

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 120  
 gagcctgagg cggcgagctc ccggggcagc cctgtgcgcg tgaagcggga gttcgagcgg  
 180  
 gcgagcgcgc gcgaggcccc ggcttctgtt gtcccgtttg tgcgggtgaa gcgggagcgc  
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2100  
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2160  
tgatttgat ttttagatgg attaaatagt ctctgtttt taiaaaaaaa aiaiaaaaaa  
2220  
aaaaaaaaa aiaiaaaaaa aiaiaaaaaa aiaiaaaaaa aiaiaaaaaa aaa  
2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

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          20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
          35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
          50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
          85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
          100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
          115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
          195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
          210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
          275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
          290          295          300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
305          310          315          320
Arg Ile Leu Val

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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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<210> 5154  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

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 Ala Cys His Arg Trp Leu Gln Glu Gly Ser Thr Leu Gly Gly Thr Gly  
 35 40 45  
 Glu Leu Ala Phe Gly Ala Asp Thr Leu Leu Thr Leu Pro Phe Leu Leu  
 50 55 60  
 Gln Gly Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val  
 65 70 75 80  
 Val Gln Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Ile  
 85 90 95  
 Ile Tyr Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met  
 100 105 110  
 Ser Tyr Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp  
 115 120 125  
 Leu Val Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Ser Glu Cys  
 130 135 140  
 Ser Ser Gln Ala Cys Pro Ser Trp Glu Gly Val Gly Trp Asn Trp Glu  
 145 150 155 160  
 Leu Phe

<210> 5155  
 <211> 1402  
 <212> DNA  
 <213> Homo sapiens

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120  
tgacattgac ttctccactg caaccatcga gttcattgtc tcctaaacct tgccatggag  
180  
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240  
cccactgcag tcctcctgac aactgaaat cagagcctgc acacagagca gcagatgctt  
300  
caatgtaaag gtcatttcca ggtccttgac aggcgtgcat ctgggccaga tccatggcaa  
360  
taaccttcag gttgaggcta gagggcttca gatgggcagc ttcgaatgac aggagcaagg  
420  
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<210> 5156

<211> 118

<212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5156

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&lt;210&gt; 5157

&lt;211&gt; 1310

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5157

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&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

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&lt;211&gt; 1645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<210> 5164  
 <211> 213  
 <212> PRT  
 <213> Homo sapiens

<400> 5164  
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 Arg His Trp Ala Trp Ser Gly Asp Thr Phe Ser Gly Gln Phe Val Leu  
 35 40 45  
 Gly Glu Pro Gln Gly Tyr Gly Val Met Glu Tyr Lys Ala Gly Gly Cys  
 50 55 60  
 Tyr Glu Gly Glu Val Ser His Gly Met Arg Glu Gly His Gly Phe Leu  
 65 70 75 80  
 Val Asp Arg Asp Gly Gln Val Tyr Gln Gly Ser Phe His Asp Asn Lys  
 85 90 95  
 Arg His Gly Pro Gly Gln Met Leu Phe Gln Asn Gly Asp Lys Tyr Asp  
 100 105 110  
 Gly Asp Trp Val Arg Asp Arg Arg Gln Gly His Gly Val Leu Arg Cys  
 115 120 125  
 Ala Asp Gly Ser Thr Tyr Lys Gly Gln Trp His Ser Asp Val Phe Ser

130	135	140
Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu		
145	150	155
Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu		160
	165	170
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn		175
	180	185
Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu		190
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Gln Gly Glu Met Thr		205
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<210> 5165  
 <211> 2370  
 <212> DNA  
 <213> Homo sapiens

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 2280  
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<210> 5166

<211> 521

<212> PRT

<213> Homo sapiens

<400> 5166

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										20			25				30				
Ala	Asp	Arg	Arg	Ser	Leu	Pro	Gly	Thr	Trp	Thr	Arg	Ser	Ser	Pro	Glu						
										35			40				45				
His	Thr	Thr	Ile	Leu	Arg	Gly	Gly	Val	Arg	Arg	Cys	Leu	Gln	Gln	Gln						
										50			55				60				
Cys	Glu	Gln	Thr	Val	Arg	Ile	Leu	His	Ala	Lys	Val	Ala	Gln	Lys	Ser						
65											70			75				80			
Tyr	Gly	Asn	Glu	Lys	Arg	Phe	Phe	Cys	Pro	Pro	Pro	Cys	Val	Tyr	Leu						
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Ser	Gly	Pro	Gly	Trp	Arg	Val	Lys	Pro	Gly	Gln	Asp	Gln	Ala	His	Gln						
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Pro	Asp	Ser	Arg	Glu	Phe	Gly	Cys	Ala	Lys	Thr	Leu	Tyr	Ile	Ser	Asp						
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Gly	Gly	Arg	Glu	Leu	Gly	Thr	Phe	His	Ser	Arg	Leu	Ile	Lys	Val	Ile						
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Ser	Lys	Pro	Ser	Gln	Lys	Lys	Gln	Ser	Leu	Lys	Asn	Thr	Asp	Leu	Cys						
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Ile	Ser	Ser	Gly	Ser	Lys	Val	Ser	Leu	Phe	Asn	Arg	Leu	Arg	Ser	Gln						
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Ser	Ala	Gln	Gly	Asp	Phe	Pro	Pro	Arg	Glu	Gly	Tyr	Val	Arg	Tyr	Gly						
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Ser	Leu	Val	Gln	Leu	Val	Cys	Thr	Val	Thr	Gly	Ile	Thr	Leu	Pro	Pro						
										275			280				285				
Met	Ile	Ile	Arg	Lys	Val	Ala	Lys	Gln	Cys	Ala	Leu	Leu	Asp	Val	Asp						
										290			295				300				
Glu	Pro	Ile	Ser	Gln	Leu	His	Lys	Cys	Ala	Phe	Gln	Phe	Pro	Gly	Ser						
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Val	Gln	Phe	Gln	Ala	Ser	Pro	Cys	Pro	Lys	Glu	Ala	Asn	Arg	Ala	Leu						
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Leu	Asn	Asp	Ser	Ser	Cys	Trp	Thr	Ile	Ile	Gly	Thr	Glu	Ser	Val	Glu						
										355			360				365				
Phe	Ser	Phe	Ser	Thr	Ser	Leu	Ala	Cys	Thr	Leu	Glu	Pro	Val	Thr	Pro						
										370			375				380				
Val	Pro	Leu	Ile	Ser	Thr	Leu	Glu	Leu	Ser	Gly	Gly	Asp	Val	Ala							
385											390			395				400			
Thr	Leu	Glu	Leu	His	Gly	Glu	Asn	Phe	His	Ala	Gly	Leu	Lys	Val	Trp						
										405			410								

450					455					460									
Arg	Ala	Asp	Gly	Leu	Phe	Tyr	Pro	Ser	Ala	Phe	Ser	Phe	Thr	Tyr	Thr				
465					470					475					480				
Pro	Glu	Tyr	Ser	Val	Arg	Pro	Gly	His	Pro	Gly	Val	Pro	Glu	Pro	Ala				
485					490					495									
Thr	Asp	Ala	Asp	Ala	Leu	Leu	Glu	Ser	Ile	His	Gln	Glu	Phe	Thr	Arg				
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Thr	Asn	Phe	His	Leu	Phe	Ile	Gln	Thr											
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<210> 5167
<211> 878
<212> DNA
<213> Homo sapiens
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ttggactgtg tgctgcagac acaatatccc aggtctatga gaattgcaat acagacttca
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cgtgggaaat ggtgaggcaa taaggatcgt ttcccttgat gaaatggagc ttgcagaaga
240
aggcagggtc agttgtggg agctctgggt ggagggtggag ggagtgcatt ccaagctgag
300
ccaagctatg acacctgagt ttccctgcctc tgtgctgcct ccctgttttc cattcccggt
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420
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480
ggcatgatat gatgtatgta aaatgcttgg cacaaggtt ctcaccgaag tctggaggag
540
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600
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660
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720
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780
acgtccctca gaccaccct cctcccacgc agctgcggga cteccctct gtgtgcctca
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878

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<210> 5168
<211> 199
<212> PRT
<213> Homo sapiens
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<400> 5168  
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Ser Arg Ala Asp Cys Leu Gly Ala Pro Asn Ile Arg Thr Ala Pro Leu
      35           40           45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln
      50           55           60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu
      65           70           75           80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser
      85           90           95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys
      100          105          110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His
      115          120          125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys
      130          135          140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu
      145          150          155          160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu
      165          170          175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu
      180          185          190
Ile Ala Ser Pro Phe Pro Thr
      195

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&lt;210&gt; 5169

&lt;211&gt; 609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5169

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420
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609

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<210> 5170  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5170  
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 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe  
 35 40 45  
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg  
 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
 165 170 175  
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 180 185 190  
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His  
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<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 5171  
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720  
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960  
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2060

<210> 5172

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5172

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Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu
      35             40             45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
      50             55             60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
65             70             75             80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
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Arg Asp Pro Gly Val Leu Ile Ala
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<210> 5173

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5173

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120
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180
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<210> 5174

<211> 93

<212> PRT

<213> Homo sapiens

<400> 5174

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Met Glu Leu Ala Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
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Glu Val Glu Gly Val His Ser Lys Leu Glu Leu Ser Arg Val Leu
          20           25           30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
          35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
          50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
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<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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120
aggggtgccc aacaccaggt agggcagcaa cgcccacgcc ctgcgcgggc acagcctccc
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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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          20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
          35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
          50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
          85           90

```

<210> 5177

<211> 637

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5177

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120
gaagaacccc gatcgctgag gagcaagggg gcgctaggaa aggggaactgg gttgcgacgg
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tccggcgaga gagagctggg gtgctggggg gcggggaagt tggggagcag aggccgcttg
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420
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540
gcccgggggc gtggatctgg cggaggcggg ggctcttctt cgtcatcgtc ctcttctcag
600
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637

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&lt;210&gt; 5178

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5178

```

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Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
20          25          30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Ser Gly Gly Gly
35          40          45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50          55          60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65          70          75          80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
85          90

```

&lt;210&gt; 5179

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5179

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60

```

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1527

&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

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 Thr Trp Asn Tyr Glu Val Glu Pro Asp Val Lys Ala Val Asp Ala Gly  
 20 25 30  
 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu  
 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
 65 70 75 80  
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
 100 105 110  
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
 115 120 125  
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe  
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 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met  
 145 150 155 160  
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn  
 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
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 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
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 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro  
 275 280 285  
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 290 295 300  
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 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
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 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
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 355 360 365  
 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val  
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 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala  
 385 390 395 400  
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

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&lt;210&gt; 5182

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5182

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			20					25					30		
Met	Gly	Ala	Leu	Ala	Ala	Ile	Leu	Ala	Tyr	Trp	Phe	Thr	His	Arg	Pro
		35					40					45			
Lys	Ala	Leu	Gln	Pro	Pro	Cys	Asn	Leu	Leu	Met	Gln	Ser	Glu	Glu	Val
	50					55					60				
Glu	Asp	Ser	Gly	Gly	Ala	Arg	Arg	Ser	Val	Ile	Gly	Ser	Gly	Pro	Gln
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Leu	Leu	Thr	His	Tyr	Asp	Asp	Ala	Arg	Thr	Met	Tyr	Gln	Val	Phe	
			85					90					95		
Arg	Arg	Gly	Leu	Ser	Ile	Ser	Gly	Asn	Gly	Pro	Cys	Leu	Gly	Phe	Arg
			100					105					110		
Lys	Pro	Lys	Gln	Pro	Tyr	Gln	Trp	Leu	Ser	Tyr	Gln	Glu	Val	Ala	Asp
		115					120					125			
Arg	Ala	Glu	Phe	Leu	Gly	Ser	Gly	Leu	Leu	Gln	His	Asn	Cys	Lys	Ala
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Cys	Thr	Asp	Gln	Phe	Ile	Gly	Val	Phe	Ala	Gln	Asn	Arg	Pro	Glu	Trp
145				150					155					160	
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Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Gly	Ala	Ile	Arg	Tyr	Ile	Ile	Asn	Thr
		180						185					190		
Ala	Asp	Ile	Ser	Thr	Val	Ile	Val	Asp	Lys	Pro	Gln	Lys	Ala	Val	Leu
	195						200					205			
Leu	Leu	Glu	His	Val	Glu	Arg	Lys	Glu	Thr	Pro	Gly	Leu	Lys	Leu	Ile
	210					215					220				
Ile	Leu	Met	Asp	Pro	Phe	Glu	Glu	Ala	Leu	Lys	Glu	Arg	Gly	Gln	Lys
225					230						235			240	
Cys	Gly	Val	Val	Ile	Lys	Ser	Met	Gln	Ala	Val	Glu	Asp	Cys	Gly	Gln

					245					250					255		
Glu	Asn	His	Gln	Ala	Pro	Val	Pro	Pro	Gln	Pro	Asp	Asp	Leu	Ser	Ile		
			260						265				270				
Val	Cys	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Asn	Pro	Lys	Gly	Ala	Met	Leu		
		275						280				285					
Thr	His	Gly	Asn	Val	Val	Ala	Asp	Phe	Ser	Gly	Phe	Leu	Lys	Val	Thr		
	290					295					300						
Glu	Ser	Gln	Trp	Ala	Pro	Thr	Cys	Ala	Asp	Val	His	Ile	Ser	Tyr	Leu		
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Pro	Leu	Ala	His	Met	Phe	Glu	Arg	Met	Val	Gln	Ser	Val	Val	Tyr	Cys		
			325						330					335			
His	Gly	Gly	Arg	Val	Gly	Phe	Phe	Gln	Gly	Asp	Ile	Arg	Leu	Leu	Ser		
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			405						410					415			
Phe	Asn	Lys	Ile	Gln	Ala	Ser	Leu	Gly	Gly	Cys	Val	Arg	Met	Ile	Val		
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Thr	Gly	Ala	Ala	Pro	Ala	Ser	Pro	Thr	Val	Leu	Gly	Phe	Leu	Arg	Ala		
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Ala	Leu	Gly	Cys	Gln	Val	Tyr	Glu	Gly	Tyr	Gly	Gln	Thr	Glu	Cys	Thr		
	450					455					460						
Ala	Gly	Cys	Thr	Phe	Thr	Thr	Pro	Gly	Asp	Trp	Thr	Ser	Gly	His	Val		
465					470				475					480			
Gly	Ala	Pro	Leu	Pro	Cys	Asn	His	Ile	Lys	Leu	Val	Asp	Val	Glu	Glu		
			485						490					495			
Leu	Asn	Tyr	Trp	Ala	Cys	Lys	Gly	Glu	Gly	Glu	Ile	Cys	Val	Arg	Gly		
	500							505					510				
Pro	Asn	Val	Phe	Lys	Gly	Tyr	Leu	Lys	Asp	Pro	Asp	Arg	Thr	Lys	Glu		
	515						520					525					
Ala	Leu	Asp	Ser	Asp	Gly	Trp	Leu	His	Thr	Gly	Asp	Ile	Gly	Lys	Trp		
	530					535					540						
Leu	Pro	Ala	Gly	Thr	Leu	Lys	Ile	Ile	Asp	Arg	Lys	Lys	His	Ile	Phe		
545					550					555					560		
Lys	Leu	Ala	Gln	Gly	Glu	Tyr	Val	Ala	Pro	Glu	Lys	Ile	Glu	Asn	Ile		
			565						570					575			

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<210> 5183  
 <211> 2466  
 <212> DNA  
 <213> Homo sapiens

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 atcttcgagc ggggtgcggc gagcgcggac ttcattgccac tgaagcagat gatgaaaact  
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 420  
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 480  
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 660  
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 720  
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 780  
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 1200  
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 1320

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 1380  
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 1620  
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 1680  
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 1740  
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 2460  
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 2466

&lt;210&gt; 5184

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

Pro	Phe	Leu	Ser	Glu	Ala	Asn	Ala	Glu	Arg	Ile	Val	Arg	Thr	Leu	Cys
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Lys	Val	Arg	Gly	Ala	Ala	Leu	Lys	Leu	Gly	Gln	Met	Leu	Ser	Ile	Gln
			20					25						30	
Asp	Asp	Ala	Phe	Ile	Asn	Pro	His	Leu	Ala	Lys	Ile	Phe	Glu	Arg	Val
			35				40					45			
Arg	Gln	Ser	Ala	Asp	Phe	Met	Pro	Leu	Lys	Gln	Met	Met	Lys	Thr	Leu

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      50              55              60
Asn Asn Asp Leu Gly Pro Asn Trp Arg Asp Lys Leu Glu Tyr Phe Glu
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Glu Arg Pro Phe Ala Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg
      85              90              95
Met Lys Gly Gly Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val
      100              105              110
Ala Gln Ser Ile Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn
      115              120              125
Met Ser Asn Met Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp
      130              135              140
Val Leu Arg Arg Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala
145              150              155              160
Ala Cys Ala Arg Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe
      165              170              175
Tyr Val Pro Glu Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr
      180              185              190
Thr Glu Leu Val Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser
      195              200              205
Gln Glu Ile Arg Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu
      210              215              220
Arg Glu Leu Phe Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser
225              230              235              240
Asn Phe Phe Tyr Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe
      245              250              255
Gly Ala Thr Arg Glu Tyr Asp Arg Ser Phe Thr Asp Leu Tyr Ile Gln
      260              265              270
Ile Ile Arg Ala Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys
      275              280              285
Ser Ile Glu Met Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu
      290              295              300
Asp Ala His Leu Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser
305              310              315              320
Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His
      325              330              335
Asn Leu Ile Pro Val Met Leu Arg His Arg Leu Val Pro Pro Pro Glu
      340              345              350
Glu Thr Tyr Ser Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys
      355              360              365
Ser Lys Leu Lys Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala
      370              375              380
Tyr Ser Asn Tyr Cys Lys Arg Gln Ala Gln Gln
385              390              395

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&lt;210&gt; 5185

&lt;211&gt; 1657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5185

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ctgctttaac aaggggcaaa aacacatgca accaaagcca gcagttatgc cgaagcatcc

120

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180  
ggagactaca agagtttaaa aatactggga ctgctggaga tttccctggc catatatagt  
240  
tcacttgttt cacagatctc actctgtcac ccaggctgga gtacagtggg gcgatctcaa  
300  
cttactgcaa cctccgctc ccgggtcaag cgattgcct gcctctgcct tagctatgtc  
360  
cctttcagaa aaattctact tcaagagaag atttggtttc aggatgtctc ctggactgga  
420  
gggcatgtac ctagagtccc acgaactggc tgggtataca gaaatgtcca gaggccggag  
480  
agcgtttcag atcacatgta ccggatggca gttatggcta tggatgacaa agatgaccgt  
540  
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600  
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660  
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720  
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780  
gagatagtc agcttgtttc tgaacttgag gcagaaagaa gcactaacat agctgcagct  
840  
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1200  
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1260  
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1320  
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1380  
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1440  
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1560  
agaaatataa ataggaactg gggtcattga gcctcaggta gggaatatat caacccgatt  
1620  
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1657

&lt;210&gt; 5186

<211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 5186  
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 Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser  
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 Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro  
 35 40 45  
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser  
 50 55 60  
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg  
 65 70 75 80  
 Lys Ile Leu Leu Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr  
 85 90 95  
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn  
 100 105 110  
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val  
 115 120 125  
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala  
 130 135 140  
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu  
 145 150 155 160  
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys  
 165 170 175  
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu  
 180 185 190  
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp  
 195 200 205  
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser  
 210 215 220  
 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu  
 225 230 235 240  
 Pro His Ser

<210> 5187  
 <211> 1712  
 <212> DNA  
 <213> Homo sapiens

<400> 5187  
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 180  
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 240  
 aaatattatc tctgtggttt ttgtcctgcg gaattgttca caaatacacg ttctgatctt  
 300

ggctccgtgtg aaaaaattca tgatgaaaat ctacgaaaac agtatgagaa gagctctcgt  
 360  
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 420  
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 540  
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 600  
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 660  
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 720  
 ggagcctttt taatagtagg agatgccag tcccgggtag atgaccattt gatgggaaaa  
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 caacacatgg gctatgccaa aattaaagct actgtagaag aattaaaga aaagttaagg  
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 1712

&lt;210&gt; 5188

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 5188

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 Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe  
 35 40 45  
 Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu  
 50 55 60  
 Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly  
 65 70 75 80  
 Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val  
 85 90 95  
 Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn  
 100 105 110  
 Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys  
 115 120 125  
 Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu  
 130 135 140  
 Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys  
 145 150 155 160  
 Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr  
 165 170 175  
 Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys  
 180 185 190  
 Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val  
 195 200 205  
 Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys  
 210 215 220  
 Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu  
 225 230 235 240  
 Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu  
 245 250 255  
 Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Lys Arg  
 260 265 270  
 Arg Arg Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu  
 275 280 285  
 Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser  
 290 295 300  
 Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg  
 305 310 315 320  
 Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His  
 325 330 335  
 Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg  
 340 345 350  
 Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg  
 355 360 365  
 Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser  
 370 375 380  
 Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser  
 385 390 395 400  
 Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val  
 405 410 415  
 Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

420                      425                      430  
 Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser  
           435                      440                      445  
 Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile  
           450                      455                      460  
 Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys  
 465                      470                      475                      480  
 Leu Phe Gly Asn Tyr Arg Pro His Leu  
                                  485

<210> 5189  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<400> 5189  
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 120  
 aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat  
 180  
 gaagttaatc attccttaat tcctgtttat ttatatttca tttttgcttt ctttttactc  
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 catgtgttat tcctacagaa gtcacaagtt aaatgttttt ggggaacttt gggggggggg  
 300  
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 323

<210> 5190  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5190  
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 Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn  
           20                      25                      30  
 Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser  
           35                      40                      45  
 Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu  
           50                      55                      60  
 Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys  
 65                      70                      75                      80  
 Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His  
                                  85                      90                      95  
 Pro Cys Ala Ala  
                                  100

<210> 5191  
 <211> 1632  
 <212> DNA  
 <213> Homo sapiens

<400> 5191  
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120  
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180  
cgtgggaggc cgggtgcgca ggactggaac gcggttcctc cttcttcccc gcccgcgccC  
240  
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300  
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360  
ccggagatct tcgaccccc ggaggagctg gagcggaagg tgtgggaact ggcgaggctg  
420  
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480  
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720  
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780  
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840  
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900  
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1140  
ctcatgaagc acctggggct ggagatcccc gcctgggacg gccccctgtg gctggagagg  
1200  
gcgctgccac ccctgccccg cccgcccacc cccaagctgg agcccaagga ggaatctccc  
1260  
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1320  
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1380  
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1440  
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<210> 5192  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 5192  
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 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val  
 35 40 45  
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
 50 55 60  
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
 65 70 75 80  
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
 85 90 95  
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser  
 100 105 110  
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys  
 115 120 125  
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys  
 130 135 140  
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys  
 145 150 155 160  
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala  
 165 170 175  
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His  
 180 185 190  
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
 195 200 205  
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp  
 210 215 220  
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn  
 225 230 235 240  
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn  
 245 250 255  
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly  
 260 265 270  
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
 275 280 285  
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro  
 290 295 300  
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro  
 305 310 315 320  
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
 325 330 335  
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

340                      345                      350  
 Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg  
 355                      360                      365  
 Phe Arg Glu Glu Ala Thr Pro Gln Arg  
 370                      375

<210> 5193  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

<400> 5193  
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 cagcagctct gtgtcccggc atggccactg tggggcagag acacagcagg tcccacatct  
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 ctgtgccctg cagaccgctc agccctgggg atgctggtct gggacggacc cctagatatc  
 240  
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 gcagaattct cagggtggat ttccagcaac gcctcctggg agggtcagca ggggctgggg  
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 420  
 cgcttggtcca gcctcatcca gcctggtgtc tccggtgcca cgcgctaaca cttcagtgc  
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<210> 5194  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5194  
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 Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp  
 20                      25                      30  
 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly  
 35                      40                      45  
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg  
 50                      55                      60  
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala  
 65                      70                      75                      80  
 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg  
 85                      90

<210> 5195  
 <211> 964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5195

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960
gccg
964

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&lt;210&gt; 5196

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5196

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Met Pro Ser Glu Ala Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser
1           5           10           15
Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
20           25           30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35           40           45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50           55           60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

```

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65          70          75          80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val
      85          90          95
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu
      100         105         110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
      115         120         125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
      130         135         140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
      145         150         155         160
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
      165         170         175
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
      180         185         190
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
      195         200         205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
      210         215         220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
      225         230         235         240
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp
      245         250         255
Ala Ala Gly Tyr Tyr Gln Leu Ala Leu Ala Ala
      260         265

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<210> 5197  
 <211> 1045  
 <212> DNA  
 <213> Homo sapiens

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 420  
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 480  
 ccgcccagga agcttcatgg ctgggcacca ggcctgact accagaagtc atcaatgggc  
 540  
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 720  
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 780  
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 840  
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 900  
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 960  
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 caacaacagc aggagcagct gtaca  
 1045

<210> 5198  
 <211> 283  
 <212> PRT  
 <213> Homo sapiens

<400> 5198  
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 20 25 30  
 Glu Glu Glu Glu Glu Val Val Lys Asp Gly Arg Pro Lys Trp Asn Ser  
 35 40 45  
 Trp Asp Pro Arg Arg Gln Arg Gln Leu Ser Met Ser Ser Ala Asp Ser  
 50 55 60  
 Ala Asp Ala Lys Arg Thr Arg Glu Glu Gly Lys Asp Trp Ala Glu Ala  
 65 70 75 80  
 Val Gly Ala Ser Arg Val Val Arg Lys Ala Pro Asp Pro Gln Pro Pro  
 85 90 95  
 Pro Arg Lys Leu His Gly Trp Ala Pro Gly Pro Asp Tyr Gln Lys Ser  
 100 105 110  
 Ser Met Gly Ser Met Phe Arg Gln Gln Ser Ile Glu Asp Lys Glu Asp  
 115 120 125  
 Lys Pro Pro Pro Arg Gln Lys Phe Ile Gln Ser Glu Met Ser Glu Ala  
 130 135 140  
 Val Glu Arg Ala Arg Lys Arg Arg Glu Glu Glu Glu Arg Arg Ala Arg  
 145 150 155 160  
 Glu Glu Arg Leu Ala Ala Cys Ala Ala Lys Leu Lys Gln Leu Asp Gln  
 165 170 175  
 Lys Cys Lys Gln Ala Arg Lys Ala Gly Glu Ala Arg Lys Gln Ala Glu  
 180 185 190  
 Lys Glu Val Pro Trp Ser Pro Ser Ala Glu Lys Ala Ser Pro Gln Glu  
 195 200 205  
 Asn Gly Pro Ala Val His Lys Gly Ser Pro Glu Phe Pro Ala Gln Glu  
 210 215 220  
 Thr Pro Thr Thr Phe Pro Glu Glu Ala Pro Thr Val Ser Pro Ala Val  
 225 230 235 240  
 Ala Gln Ser Asn Ser Ser Glu Glu Glu Ala Arg Glu Ala Gly Ser Pro  
 245 250 255  
 Ala Gln Glu Phe Lys Tyr Gln Lys Ser Leu Pro Pro Arg Phe Gln Arg



260
265  
Gln Gln Gln Gln Gln Gln Gln Glu Gln Leu Tyr  
275
280

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<210> 5199
<211> 1332
<212> DNA
<213> Homo sapiens
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120
cagccgctga ggtgactttc aacggcagac cgtctcctga gcgccccagg tagaatttca
180
aaagtctccg ggaccattat ggcagtcaag tggacgggtg ggcattcttc tctgtctctc
240
tgctgaatg caagtaaaga agggctgctg gcttctggag cagagggcgg agatctcacg
300
gcttggggtg aagatggaac tccattagga cacacgcggt tccaaggggc tgatgatgtt
360
accagtgtct tattttctcc ctctgtccc accaagctct atgcctcaca tggagaaacc
420
attagtgtac tggatgtcag gtccctcaaa gattccttg accattttca tgtgaatgaa
480
gaagaaatca attgtctttc attgaatcaa acggaaaacc tgctggcttc tgctgacgac
540
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600
cattccaata tctgctcttc agtggctttt cggcctcaga ggccctcagag cctgggtgtc
660
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720
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1320

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1332

<210> 5200  
<211> 358  
<212> PRT  
<213> Homo sapiens

<400> 5200  
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Leu Thr Ala Trp Gly Glu Asp Gly Thr Pro Leu Gly His Thr Arg Phe  
35 40 45  
Gln Gly Ala Asp Asp Val Thr Ser Val Leu Phe Ser Pro Ser Cys Pro  
50 55 60  
Thr Lys Leu Tyr Ala Ser His Gly Glu Thr Ile Ser Val Leu Asp Val  
65 70 75 80  
Arg Ser Leu Lys Asp Ser Leu Asp His Phe His Val Asn Glu Glu Glu  
85 90 95  
Ile Asn Cys Leu Ser Leu Asn Gln Thr Glu Asn Leu Leu Ala Ser Ala  
100 105 110  
Asp Asp Ser Gly Ala Ile Lys Ile Leu Asp Leu Glu Asn Lys Lys Val  
115 120 125  
Ile Arg Ser Leu Lys Arg His Ser Asn Ile Cys Ser Ser Val Ala Phe  
130 135 140  
Arg Pro Gln Arg Pro Gln Ser Leu Val Ser Cys Gly Leu Asp Met Gln  
145 150 155 160  
Val Met Leu Trp Ser Leu Gln Lys Ala Arg Pro Leu Trp Ile Thr Asn  
165 170 175  
Leu Gln Glu Asp Glu Thr Glu Glu Met Glu Gly Pro Gln Ser Pro Gly  
180 185 190  
Gln Leu Leu Asn Pro Ala Leu Ala His Ser Ile Ser Val Ala Ser Cys  
195 200 205  
Gly Asn Ile Phe Ser Cys Gly Ala Glu Asp Gly Lys Val Arg Ile Phe  
210 215 220  
Arg Val Met Gly Val Lys Cys Glu Gln Glu Leu Gly Phe Lys Gly His  
225 230 235 240  
Thr Ser Gly Val Ser Gln Val Cys Phe Leu Pro Glu Ser Tyr Leu Leu  
245 250 255  
Leu Thr Gly Gly Asn Asp Gly Lys Ile Thr Leu Trp Asp Ala Asn Ser  
260 265 270  
Glu Val Glu Lys Lys Gln Lys Ser Pro Thr Lys Arg Thr His Arg Lys  
275 280 285  
Lys Pro Lys Arg Gly Thr Cys Thr Lys Gln Gly Gly Asn Thr Asn Ala  
290 295 300  
Ser Val Thr Asp Glu Glu Glu His Gly Asn Ile Leu Pro Lys Leu Asn  
305 310 315 320  
Ile Glu His Gly Glu Lys Val Asn Trp Leu Leu Gly Thr Lys Ile Lys  
325 330 335  
Gly His Gln Asn Ile Leu Val Ala Asp Gln Thr Ser Cys Ile Ser Val  
340 345 350  
Tyr Pro Leu Asn Glu Phe

355

<210> 5201  
<211> 6104  
<212> DNA  
<213> Homo sapiens

<400> 5201  
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&lt;210&gt; 5202

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5202

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Ser Pro Gly Pro Arg Gly Leu Pro Glu Gly Pro Gln Ala Leu Gly Arg
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Val Ala Val Gly Gly Gln Val His Cys Pro Glu Val Leu Ser Ala Leu
      20           25           30
Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
      35           40           45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
      50           55           60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
65           70           75           80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
      85           90           95
Ile Phe Cys Phe Phe Leu Ser Phe Phe Leu Arg
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&lt;210&gt; 5203

&lt;211&gt; 1863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5203

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 aaa  
 1863

&lt;210&gt; 5204

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5204

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Asp	Leu	Val	Glu	Tyr	Phe	Lys	Ala	Tyr	Ile	Lys	Ile	Tyr	Gln	Gly	Glu
		20						25					30		
Glu	Leu	Pro	His	Pro	Lys	Ser	Met	Leu	Gln	Ala	Thr	Ala	Glu	Ala	Asn
		35					40					45			
Asn	Leu	Ala	Ala	Val	Ala	Gly	Ala	Arg	Asp	Thr	Tyr	Cys	Lys	Ser	Met
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Glu	Gln	Val	Cys	Gly	Gly	Asp	Lys	Pro	Tyr	Ile	Ala	Pro	Ser	Asp	Leu
65				70						75				80	
Glu	Arg	Lys	His	Leu	Asp	Leu	Lys	Glu	Val	Ala	Ile	Lys	Gln	Phe	Arg
			85					90					95		
Ser	Val	Lys	Lys	Met	Gly	Gly	Asp	Glu	Phe	Cys	Arg	Arg	Tyr	Gln	Asp





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 2011

&lt;210&gt; 5206

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

His	Ser	Leu	Ala	Ser	Val	Leu	Ser	Ser	Pro	Gly	His	Pro	Ser	Arg	His
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Val	Ala	Lys	Ala	Phe	Arg	Val	Lys	Ser	Asn	Thr	Ala	Ile	Lys	Gly	Ser
		20						25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
	35						40				45				
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn

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      50              55              60
Ile Val Lys Leu Tyr Ala His Lys Gly Asp Ala Val Thr Val Tyr Val
65              70              75              80
Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro
      85              90              95
Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr
      100             105             110
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met
      115             120             125
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys
      130             135             140
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala
145             150             155             160
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu
      165             170             175
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp
      180             185             190
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu
      195             200             205
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser
      210             215             220
Thr Leu Gln Gly Asp Met Arg His Met Thr Leu Glu Gly Glu Glu Glu
225             230             235             240
Asn Gly Glu Val His Gln Gly Thr
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&lt;210&gt; 5207

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5207

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&lt;210&gt; 5208

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 <212> PRT  
 <213> Homo sapiens

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 Lys Ser Ala Ile Val Arg Gln Phe Leu Tyr Asn Glu Phe Ser Glu Val  
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 Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met  
 35 40 45  
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser  
 50 55 60  
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg  
 65 70 75 80  
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys  
 85 90 95  
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu  
 100 105 110  
 Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn  
 115 120 125  
 Lys Arg Asp Leu Gln Arg Gly Arg  
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<210> 5209  
 <211> 1592  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5210

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5210

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Leu	Met	Arg	Ser	Val	Pro	Asp	Pro	Ser	Thr	Arg	Ala	Leu	Leu	Leu	Leu
			20					25					30		
Ala	Leu	Leu	Ile	Leu	Tyr	Ala	Leu	Leu	Ser	Arg	Leu	Thr	Gly	Ser	Arg
			35				40					45			
Ala	Ser	Gly	Ala	Gln	Leu	Glu	Ala	Lys	Val	Arg	Gly	Leu	Glu	Arg	Gln
			50			55				60					
Val	Glu	Glu	Leu	Arg	Trp	Arg	Gln	Arg	Arg	Ala	Ala	Lys	Gly	Ala	Arg
65					70					75				80	
Ser	Val	Glu	Glu	Glu											

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&lt;211&gt; 602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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602

<210> 5212  
<211> 104  
<212> PRT  
<213> Homo sapiens

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Arg Ile Lys Ile Asn Glu Glu Phe Lys Asn Asn Lys Ser Glu Thr Ser  
35 40 45  
Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu  
50 55 60  
Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr  
65 70 75 80  
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Cys Asp Ala Pro Thr Gln Lys Gln  
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<210> 5213  
<211> 4387  
<212> DNA  
<213> Homo sapiens

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3240

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<210> 5218

<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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Ser	Trp	Ala	Met	Gly	Ser	Leu	Arg	Pro	Glu	Ala	Pro	Leu	Leu	Ser	Ser
		20						25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40					45			
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
		50				55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
65				70					75					80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
			85					90					95		
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
		100						105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser



115 120 125  
 Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu  
 130 135 140  
 Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys  
 145 150 155 160  
 Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu  
 165 170 175  
 Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys  
 180 185 190  
 Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly  
 195 200 205  
 Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser  
 210 215 220  
 Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys  
 225 230 235 240  
 Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro  
 245 250 255  
 Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn  
 260 265 270  
 Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Gln Ser Lys Ala Ser  
 275 280 285  
 Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln  
 290 295 300  
 Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg  
 305 310 315 320  
 His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val  
 325 330 335  
 Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly  
 340 345 350  
 Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg  
 355 360 365  
 Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu  
 370 375 380  
 Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly  
 385 390 395 400  
 Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu  
 405 410 415  
 Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His  
 420 425 430  
 Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu  
 435 440 445  
 Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys  
 450 455 460  
 Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His  
 465 470 475 480  
 Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser  
 485 490 495  
 Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val  
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 Thr Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro  
 515 520 525  
 Ser Glu Gln Leu Val Glu Glu Glu Glu Pro Met Asn Leu  
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<211> 1212  
<212> DNA  
<213> Homo sapiens

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120  
aacgtctccc tgetcacccc acccccgcgc agacgcagtg ctgagcacac agctaccgga  
180  
caaagagtga cgcccgagc tggagttatg gcggctacgg agccgatctt ggcgccact  
240  
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300  
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420  
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480  
cgctccacac cagggccgcg cggtctaga ctcggtcccg agacgttcgg ccagcggttc  
540  
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600  
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gtgcaagagc agctgctcgc caccctgccc gagggcgctc gggcccgggc gatccgccc  
720  
cgcacggatg tgcgcatcac tggctgagcg gtggagctgc gggcgggccg ggcggggcgc  
780  
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840  
ttaatgaaaa atgagttttg gcagcgctg tggctgtgtg tgtctctttc attcgttctt  
900  
attgggttta ttttaccagg cctgtttcct accgccttcc tggtcgggtg cgaaacgaag  
960  
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1020  
aacctagggt atccctctac cacacatggg aagtttttca cctgggctcc caaggaccca  
1080  
cttgggtttc ttacacgcaa aatagctggc tctattaaat gctcacttaa ctggctacct  
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1200  
cnagttactg gg  
1212

<210> 5220  
<211> 179  
<212> PRT  
<213> Homo sapiens

<400> 5220  
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 Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu  
 20 25 30  
 Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro  
 35 40 45  
 Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro  
 50 55 60  
 Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro  
 65 70 75 80  
 Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly  
 85 90 95  
 Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg  
 100 105 110  
 Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln  
 115 120 125  
 Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys  
 130 135 140  
 Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu  
 145 150 155 160  
 Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg  
 165 170 175  
 Ile Thr Gly

<210> 5221  
 <211> 497  
 <212> DNA  
 <213> Homo sapiens

<400> 5221  
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 180  
 ggtctggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattcct  
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<210> 5222  
 <211> 112  
 <212> PRT

<213> Homo sapiens

<400> 5222

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Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly
 20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
100           105           110

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<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
180
atgtgctcct acaagctggt gactgtgaag tttgaggtct gggggcttca gaccagagtg
240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
300
gcatgggttg atgagtggta tgatatgaca atggatgatg ttcggggaata cgagaaaaac
360
atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctccctgtt ggatgacata
420
gagagtcatg cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttccacc tgcaatttct atctccagca
540
tccccctgct gccttcttcc gtccgcagtg cgccttctag tgctccatcc acccctctct
600
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637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

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Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

```

```

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Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

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&lt;210&gt; 5225

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5225

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acgcgtgaag gggctgggggt gggcaatcag ggaggacttc ctggaggcgg cagctgagggc
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120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaaccc tggcggcaga
240
caggaggagg cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cgggtgggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

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&lt;210&gt; 5226

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5226

```

Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

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50					55					60					
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65					70					75					80
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
				85					90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
			100					105					110		
Pro															

<210> 5227

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 5227

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120	ggatgacggt	catgccggca	ggcaccgtgt	agaaggccag	tgtggttaacc
180	acctgaactt	cacccggtca	gacctcatct	tcaccgtgga	cttcgaaatt
240	aggatcctcg	cagcttctac	gagcgggggtg	tcgcagtcct	gtgcacagag
300	tagctgcccc	tttctgtaat	agtgaaggtt	ggtatttaac	atttattcat
360	tttggaaggt	ctgagcttgt	gaaaagaaa	tggttggtct	gaggttggag
420	ggaatctgac	ggttgggagt	ggtggaaatt	ggaaggatac	caggaggtat
480	cttacggagc	tgccctcgtc	tactggagca	gaagaaatag	acctaatctt
540	attatggaga	atcctattgt	aaaatcactt	gctaaggctc	gtgagaggtc
600	aaactagaag	ctgtcagtga	caataacttg	gaattagtca	atgaaattct
660	actcctctaa	taaatgtgga	tgaaaatgtg	gcagaattgg	ttggtatact
720	cacttccagt	cactgttgga	ggcccatgat	attgtggcat	caaagtgtta
780	ccatcaagcc	cagaaatgaa	taattcttct	atcaataatc	agttattacc
840	attcgtattc	ttggtattca	caaaagagct	ggggaaccac	tgggtgtgac
900	gaaaataatg	atctggtaat	tgcccgaatc	ctccatgggg	gaatgataga
960	ctacttcagt	tgggagatat	aattaaagaa	gtcaatggcc	atgagggttg
1020	aaggaattac	agaattact	gaaaaatatt	agtggaagtg	tcaccctaaa
1080	agttatagag	ataccattac	tcctcaacag	gtattttgtga	agtgtcattt
1140					

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 1200  
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 1260  
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 1320  
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 1380  
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 1440  
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 2160  
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 2280  
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 2340  
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 2366

&lt;210&gt; 5228

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

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 Asn Leu Thr Glu Leu Pro Ser Ser Thr Gly Ala Glu Glu Ile Asp Leu  
 20 25 30  
 Ile Phe Leu Lys Gly Ile Met Glu Asn Pro Ile Val Lys Ser Leu Ala

	35					40					45				
Lys	Ala	Arg	Glu	Arg	Leu	Glu	Asp	Ser	Lys	Leu	Glu	Ala	Val	Ser	Asp
	50					55				60					
Asn	Asn	Leu	Glu	Leu	Val	Asn	Glu	Ile	Leu	Glu	Asp	Ile	Thr	Pro	Leu
65					70				75					80	
Ile	Asn	Val	Asp	Glu	Asn	Val	Ala	Glu	Leu	Val	Gly	Ile	Leu	Lys	Glu
				85				90						95	
Pro	His	Phe	Gln	Ser	Leu	Leu	Glu	Ala	His	Asp	Ile	Val	Ala	Ser	Lys
			100					105					110		
Cys	Tyr	Asp	Ser	Pro	Pro	Ser	Ser	Pro	Glu	Met	Asn	Asn	Ser	Ser	Ile
	115					120					125				
Asn	Asn	Gln	Leu	Leu	Pro	Val	Asp	Ala	Ile	Arg	Ile	Leu	Gly	Ile	His
	130				135					140					
Lys	Arg	Ala	Gly	Glu	Pro	Leu	Gly	Val	Thr	Phe	Arg	Val	Glu	Asn	Asn
145					150					155					160
Asp	Leu	Val	Ile	Ala	Arg	Ile	Leu	His	Gly	Gly	Met	Ile	Asp	Arg	Gln
				165					170					175	
Gly	Leu	Leu	His	Val	Gly	Asp	Ile	Ile	Lys	Glu	Val	Asn	Gly	His	Glu
			180				185						190		
Val	Gly	Asn	Asn	Pro	Lys	Glu	Leu	Gln	Glu	Leu	Leu	Lys	Asn	Ile	Ser
	195					200						205			
Gly	Ser	Val	Thr	Leu	Lys	Ile	Leu	Pro	Ser	Tyr	Arg	Asp	Thr	Ile	Thr
	210				215						220				
Pro	Gln	Gln	Val	Phe	Val	Lys	Cys	His	Phe	Asp	Tyr	Asn	Pro	Tyr	Asn
225					230				235						240
Asp	Asn	Leu	Ile	Pro	Cys	Lys	Glu	Ala	Gly	Leu	Lys	Phe	Ser	Lys	Gly
				245					250					255	
Glu	Ile	Leu	Gln	Ile	Val	Asn	Arg	Glu	Asp	Pro	Asn	Trp	Trp	Gln	Ala
			260					265					270		
Ser	His	Val	Lys	Glu	Gly	Gly	Ser	Ala	Gly	Leu	Ile	Pro	Ser	Gln	Phe
	275					280						285			
Leu	Glu	Glu	Lys	Arg	Lys	Ala	Phe	Val	Arg	Arg	Asp	Trp	Asp	Asn	Ser
	290				295						300				
Gly	Pro	Phe	Cys	Gly	Thr	Ile	Ser	Ser	Lys	Lys	Lys	Lys	Met	Met	
305					310					315				320	
Tyr	Leu	Thr	Thr	Arg	Asn	Ala	Glu	Phe	Asp	Arg	His	Glu	Ile	Gln	Ile
				325					330					335	
Tyr	Glu	Glu	Val	Ala	Lys	Met	Pro	Pro	Phe	Gln	Arg	Lys	Thr	Leu	Val
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385					390					395					4



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Lys	Lys	Thr	Val	Asp	Glu	Ser	Ala	Arg	Ile	Gln	Arg	Ala	Tyr	Asn	His
			500					505					510		
Tyr	Phe	Asp	Leu	Ile	Ile	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Ala	Phe	Glu
		515				520					525				
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545					550										

&lt;210&gt; 5229

&lt;211&gt; 1031

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5229

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 35 40 45  
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser  
 50 55 60  
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys  
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 35 40 45  
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr  
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 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg  
 65 70 75 80  
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu  
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 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile  
 100 105 110  
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 115 120 125  
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 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5234

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5234

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			20				25					30			
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys
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	50					55									

&lt;210&gt; 5235

&lt;211&gt; 3017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5235

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&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

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Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
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Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
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Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
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Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
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Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
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Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu			
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Leu Glu			

&lt;210&gt; 5237

&lt;211&gt; 1238

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5237

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 1238

&lt;210&gt; 5238

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5238

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 Leu Glu Ala Arg Ser His Met His Leu Ala Ser Ala Phe Ala Gly Ile  
 50 55 60  
 Gly Phe Gly Asn Ala Gly Val His Leu Cys His Gly Met Ser Tyr Pro  
 65 70 75 80  
 Ile Ser Gly Leu Val Lys Met Tyr Lys Ala Lys Asp Tyr Asn Val Asp  
 85 90 95  
 His Pro Leu Val Pro His Gly Leu Ser Val Val Leu Thr Ser Pro Ala  
 100 105 110  
 Val Phe Thr Phe Thr Ala Gln Met Phe Pro Glu Arg His Leu Glu Met  
 115 120 125  
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 130 135 140  
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<213> Homo sapiens

<400> 5239  
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240  
acaaccggtg tagaagaaaa taaatgggga gtgaaataga agaaaagatg agggagggga  
300  
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420  
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720  
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1320  
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1380  
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1440

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 1680  
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 1740  
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 1860  
 cctccccctc ctcccggtcc ggccgcccc tccccggagc cggggatccc ggtgccgcct  
 1920  
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 1980  
 actcgagtc gctagccgct gccgccacct cctctacca ctgcctcccg cactcccgga  
 2040  
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 2061

&lt;210&gt; 5240

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5240

Met	Met	Ser	Ser	Ser	Met	Thr	Arg	Ile	Ser	Pro	Ser	Leu	Glu	Leu	Ala
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Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40					45			
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
		50				55					60				
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
				70					75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
				85					90					95	
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
			100					105					110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
		115				120						125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
						135					140				
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
					150					155				160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
				165					170					175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
			180					185					190		
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

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 Ala Cys Arg Arg Glu Lys Val Asp Leu Gly Gly Pro Gly Trp Val Gly  
 210                      215                      220  
 Pro Ala  
 225

<210> 5241  
 <211> 461  
 <212> DNA  
 <213> Homo sapiens

<400> 5241  
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 120  
 cccaggtg atccggagcc ctcttcaccc ccgtccaggg ccgtttgcac tgetcccggc  
 180  
 atcggcacac cttgttctgg ttgtgctggg acggcagcgc cccgtgaggt cagaggggtg  
 240  
 ctgtcacatc tgccaccagc tgtggtctcc tggagatttc agtgggtcgg tgcttcgctt  
 300  
 ctcacctggc cagctctgag ttcagcctct cgcctgtggg gaccctgca tcttgccggc  
 360  
 agaaggagga ggaagaagcc accagaggtt gccaggaacc cagtggcagg ggaggtgggg  
 420  
 ctgagccagg cccgcccgt gtgccgggag tcccacgcg g  
 461

<210> 5242  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 5242  
 Met Asp Ala Phe Ile Thr Phe Val Pro Leu Arg Ala Ser Pro Ser Ile  
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 Cys Arg Gly Cys Thr His Phe Gln Gly Met Thr Ala Gly Pro His Ser  
 20                      25                      30  
 Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val  
 35                      40                      45  
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr  
 50                      55                      60  
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser  
 65                      70                      75                      80  
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp  
 85                      90                      95  
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly  
 100                      105                      110  
 Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val  
 115                      120                      125  
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe  
 130                      135                      140  
 Pro Arg

145

<210> 5243  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<400> 5243  
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 tggctggacc ttacagacga gccatttggt cagaaggtaa ctgtggaccc tgacaactca  
 120  
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaaccccaga  
 180  
 agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttgggtt  
 240  
 agtttgcgcc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact  
 300  
 ggcgtatatg ctccctctgg ttactcttac cgctgccaac gcgt  
 344

<210> 5244  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 5244  
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 1 5 10 15  
 Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys  
 20 25 30  
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg  
 35 40 45  
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile  
 50 55 60  
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe  
 65 70 75 80  
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val  
 85 90 95  
 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys  
 100 105 110  
 Gln Arg

<210> 5245  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 5245  
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 60  
 ctccggcccg ctaagcccg cgcgacaact atgctgaaag ccaagatcct ctctgtgggg  
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgaggttt gagtcctgct ggccggccct gatgaaggat  
 240  
 gctcatggag tggatgacgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag  
 300  
 atgtggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt  
 360  
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg  
 420  
 aacaagctga agctggtgca ctcaaacctg gaagatgacc ctgaggagat ccggatggaa  
 480  
 ttc  
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
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Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
		35				40					45				
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
	50				55				60						
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
	65				70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
			85					90					95		
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
		100					105						110		
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
	115						120					125			
Met	Glu	Phe													
	130														

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgaggatc ctagaatttg agaaccogca tgttaccagc  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggggcgga tgctaagttt  
300  
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
360  
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg  
420  
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
480  
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg  
540  
gaagatgacc ctgaggagat cggatggaa ttcataaagt atttaaaaag cataatcaac  
600  
tccatgtctg agagcagaga caggaggagg atgtcaatta tgacctagcc agccttcacc  
660  
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat  
720  
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggtccta cctgcaggaa  
780  
ggcacctgtc acacagggcg ttcactcaga ccatctgtgc tctgccctga gttcagttga  
840  
gaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa  
900  
tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
960  
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa  
1004

&lt;210&gt; 5248

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25						30	
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35					40					45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
		50				55					60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70				75					80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
			85					90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
	115					120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
	130					135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145				150					155					160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175

Asp Arg Glu Glu Met Ser Ile Met Thr  
180 185

<210> 5249  
<211> 653  
<212> DNA  
<213> Homo sapiens

<400> 5249  
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taccggggct ggctagtcac gggggagccc agtagagagg agtataaaat ccagtccttt  
120  
gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg  
180  
gagaaaagtgg ccaatgtgat tgtggaccat tctctgcagg actgtgtgtt cagcaaggaa  
240  
gcaggacgca tgtgctacgc catcatcag gcagagagta aacaagcagg ccagagtgtc  
300  
ttccgacgtg gactcctcaa cgggctgcag caggagtacc aggcctcgga gcagctgcga  
360  
gcacgctccc tgcagggtct ggtctgctat gtcaccttta tctgcaacat ctttgactac  
420  
ctgaggggtga acaacatgcc catgatggcc ctgggtgaacc ctgtctatga ctgcctcttc  
480  
cggctggccc agccagacag tttgagcaag gaggaggagg tggactgttt ggtgctgcag  
540  
ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcacatga tgagctcttt  
600  
gtgctgctcc gggatggctt cctgctccca actggcctca gctccctggc cca  
653

<210> 5250  
<211> 217  
<212> PRT  
<213> Homo sapiens

<400> 5250  
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Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg  
20 25 30  
Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu  
35 40 45  
Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala  
50 55 60  
Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu  
65 70 75 80  
Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala  
85 90 95  
Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu  
100 105 110  
Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val



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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<400> 5251
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caccacagcg ggacggcact tcattatgac gatgtcccggt gcacaaacgg ctcgggggaa
120
ccggaagacg gctttctctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacaggcc tgtaacgataa ctggccgcct ccgcacatct ttgcccgcta ctctctgct
240
gacagaaagg cctctaggct gtctgtgac aagctgtcct ctaaccatta caaataccct
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tcgcagcctc ag
372

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<210> 5252  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 5252
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Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110  
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln  
 115 120

<210> 5253  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

<400> 5253  
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 ccacagtgc tttccagtc agcaaatgga aatctgggga gtctatactt tgctcacaac  
 120  
 tcactcfaat gccatccttg tggagagcca cagtgtagt caagggtcca tccaattcac  
 180  
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc  
 240  
 ctcaactctca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag  
 300  
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa  
 360  
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga  
 420  
 ggtgaagcag cagctaaccc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc  
 480  
 tgataacagc agcctggagc tcttagcaga taccagcggg caagcagaaa acaagaggct  
 540  
 caagaggggc agccccgcga tagaggagat gcgagctctg cgctctgccca gggccccgag  
 600  
 cccgtcagag gccgccccgc gccgcccga agccaccgcg gccccctca ctcttagagg  
 660  
 aaggagcac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggaag  
 720  
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtcc  
 780  
 cagccctggg ccctgagccg ggtcccttc cgcaagcgcc caccgatccg gaggctgcgg  
 840  
 gcagccgtta tcccgtggtt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaa  
 898

<210> 5254  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 5254  
 Gln Gln Pro Gly Ala Pro Ser Arg Tyr Gln Arg Ala Ser Arg Lys Gln  
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 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala  
 20 25 30  
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly  
 35 40 45  
 Ser His Arg Gly Pro Pro His Ser

50

55

<210> 5255  
<211> 1410  
<212> DNA  
<213> Homo sapiens

<400> 5255  
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60  
caaccccaga tccccatgcc tcgagccctg gatctccaag ctccagctgct ggattctgga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tcactggatc ccagatcccc tccctccacc cactggatc ctgcattggt ttttggtttt  
240  
ttgttttttt ttaacctcga cactgggtct cagatccctc tgctgactgc cagatccctg  
300  
catttcaage actacgcctt ccaccccag gcaactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggccccca gtggcacagc aagtggatcc  
420  
tggcaactgc agctgctgga ttccagatc tgggtcccca atccctctgc ccagtccttc  
480  
aatgttgaaa cctcatctct tgaaggcaga tctgatatt ccaaggcact gaatcccaag  
540  
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<210> 5256

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5256

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Leu	His	Gly	Cys	Trp	Ile	Pro	Pro	His	Pro	Thr	Ser	Ala	Trp	Pro	Pro
			20					25					30		
Pro	Pro	Ser	Pro	Val	Gly	Lys	Leu	Phe	Pro	Gly	Thr	Thr	Pro	Leu	Pro
		35					40					45			
Ala	Ser	Pro	His	Phe	Thr	Ala	Ser	Ser	Ile	Pro	Leu	Pro	Pro	Ser	Arg
	50					55					60				
Arg	Ile	Val	Pro	Arg	Ala	Val	Phe	Leu	Gln	Gly	Val	Arg	Gly	Ile	Thr
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His	Ser	Trp	Arg	Leu	Ala	Arg	Arg	Gln	Ser	Glu	Ala	Arg	Asp	Thr	
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<210> 5257

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 5257

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&lt;210&gt; 5258

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5258

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			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35					40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50					55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65					70					75				80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
		85						90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
		100					105					110			
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
	115					120						125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
	130				135					140					
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145					150					155				160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
		165						170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
	180						185					190			
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
	195					200				205					
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

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      210              215              220
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225              230              235              240
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      245              250              255
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr
      260              265              270
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly
      275              280              285
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe
      290              295              300
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp
305              310              315              320
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu
      325              330              335
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu
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Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser
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Ser Lys Gln Ile Leu Thr Met
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<210> 5259  
 <211> 306  
 <212> DNA  
 <213> Homo sapiens

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180
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
240
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306

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<210> 5260  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

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<400> 5260
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Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
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Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
35      40      45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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 Thr Ser Leu

<210> 5261  
 <211> 2394  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5262

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

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Ala	Glu	Arg	Pro	Leu	Gln	Asp	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Gly	Pro
			20					25					30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
		35				40					45				
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
	50					55					60				



Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly  
 70 75 80  
 Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu  
 85 90 95  
 Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu  
 100 105 110  
 Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe  
 115 120 125  
 Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp  
 130 135 140  
 Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp  
 145 150 155 160  
 Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg  
 165 170 175  
 Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly  
 180 185 190  
 Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe  
 195 200 205  
 Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg  
 210 215 220  
 Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys  
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 Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln  
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 <213> Homo sapiens

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<210> 5264  
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<400> 5264

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		20						25					30		
Trp	His	Phe	Asn	Ile	Asn	Gln	Lys	Arg	Phe	Ser	Lys	Ala	Gln	Pro	Thr
	35						40					45			
Cys	Phe	Leu	Leu	Ile	Leu	Pro	Pro	Cys	Gln	Lys	Ile	Met	Cys	Ile	Tyr
	50					55					60				
Phe	Gln	Leu	Leu	Leu	Met	Glu	Thr	Thr	Ala	Met	Leu	Asp	Leu	Leu	Val
65					70					75				80	
Ile	Arg	Gln	Leu	Lys	Ser	Ala	Leu	Ser	Gln	Thr	Leu	Leu	Cys	His	Leu
			85						90					95	
Leu	Ile	Leu	Val	Leu	Ile	Cys	Ser	Arg							
			100					105							

&lt;210&gt; 5265

&lt;211&gt; 3203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5265

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 3180  
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&lt;210&gt; 5266

&lt;211&gt; 853

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5266

Met	Gly	Thr	Pro	Arg	Ala	Gln	His	Pro	Pro	Pro	Pro	Gln	Leu	Leu	Phe
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		20						25				30			
Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
		35					40					45			
Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly	Pro
	50					55					60				
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Gly	Glu
65					70					75					80
Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
			85					90					95		
Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Glu	Gly
			100					105					110		
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
		115					120					125			
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
	130					135					140				
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
145					150					155					160
Val	Leu	Ala	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala	
			165					170					175		
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
			180					185					190		
Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly	Gly

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225					230					235					240	
Thr	Ala	Thr	Phe	His	Cys	Asp	Ser	Gly	Tyr	Gln	Leu	Gln	Gly	Glu	Glu	
				245					250					255		
Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly	Glu	Thr	
			260					265					270			
Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala	Thr	Leu	
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Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Gly	Pro	Asn	Leu	
	290					295					300					
Thr	Cys	Arg	Trp	Val	Ile	Glu	Ala	Ala	Glu	Gly	Arg	Arg	Leu	His	Leu	
305					310					315					320	
His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu	Met	Val	
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Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser	Asp	Met	
			340					345					350			
Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser	Leu	Tyr	
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Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu	Ser	Leu	
	370					375					380					
Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe	Leu	Ala	
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His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly	Ala	Leu	
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Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro	Gly	Pro	
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Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp	Asn	Asp	
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	450					455					460					
Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser	Pro	Gly	
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Gln	Asp	Cys	Val	Trp	Gly	Val	His	Val	Gln	Glu	Glu	Lys	Arg	Ile	Leu	
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Leu	Gln	Val	Glu	Ile	Leu	Asn	Val	Arg	Glu	Gly	Asp	Met	Leu	Thr	Leu	
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Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly	
	515						520					525				
Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu	Thr	Leu	
	530					535					540					
Gln	Phe	Gln	Ala	Pro	Pro	Gly	Pro	Pro	Asn	Pro	Gly	Leu	Gly	Gln	Gly	
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 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala  
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 Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser  
                                  675                      680                      685  
 Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro  
                                  690                      695                      700  
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln  
 705                      710                      715                      720  
 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile  
                                  725                      730                      735  
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr  
                                  740                      745                      750  
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn  
                                  755                      760                      765  
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu  
                                  770                      775                      780  
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile  
 785                      790                      795                      800  
 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys  
                                  805                      810                      815  
 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val  
                                  820                      825                      830  
 Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp Thr Arg Glu  
                                  835                      840                      845  
 Tyr Glu Val Ser Ile  
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&lt;210&gt; 5267

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5267

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 180  
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 300  
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 720  
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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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			20					25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
		35					40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55					60				
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65					70					75				80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85						90					95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
			100					105					110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
		115					120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
	130					135					140				
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
145					150					155				160	
Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
			165						170					175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
		180						185					190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
	195						200					205			
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
	210					215						220			
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225					230					235				240	
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
			245						250				255		
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
			260					265					270		
Gly	Asp	Gly	Tyr	Gly	Thr	Phe									

275

<210> 5269  
<211> 1177  
<212> DNA  
<213> Homo sapiens

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120  
aatgaacagt cacagaagac acaaaatata tccagctttg attctgagct gtttctagaa  
180  
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240  
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300  
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480  
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720  
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780  
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840  
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900  
ccacaggtat ttaatacaag gctgtttaag gtcaaagaaa gacacttggt tcttacctat  
960  
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1020  
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1080  
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1177

<210> 5270  
<211> 327  
<212> PRT  
<213> Homo sapiens



&lt;400&gt; 5270

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Glu Leu Phe Leu Glu Glu Leu Asp Glu Leu Pro Pro Leu Ser Pro Met
 20          25          30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
 35          40          45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
 50          55          60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
 65          70          75          80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
 85          90          95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
290          295          300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
305          310          315          320
Glu Lys Phe Leu Lys Thr Leu
325

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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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120

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 1185

&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

Met	Ala	Ala	Leu	Thr	Thr	Leu	Phe	Lys	Tyr	Ile	Asp	Glu	Asn	Gln	Asp
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Arg	Tyr	Ile	Lys	Pro	Val	Gln	Leu	Gln	Gln	Pro	Gln	Arg	Val	Ser	Leu
			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55					60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
					70					75				80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

85 90 95  
 Ser Val Glu Leu Val Asp Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser  
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 Glu Ile Pro Leu Pro Pro Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro  
 115 120 125  
 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala  
 130 135 140  
 Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg  
 145 150 155 160  
 Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val  
 165 170 175  
 Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu  
 180 185 190  
 Ile Pro Val Asn Val Arg Phe Cys Leu Glu Gly Met Glu Glu Ser Gly  
 195 200 205  
 Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe  
 210 215 220  
 Lys Asp Val Asp Tyr Val Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys  
 225 230 235 240  
 Lys Lys Pro Cys Ile Thr Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe  
 245 250 255  
 Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly  
 260 265 270  
 Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Leu Met Gly Ser  
 275 280 285  
 Leu Val Asp Lys Arg Gly Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala  
 290 295 300  
 Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp  
 305 310 315 320  
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu  
 325 330 335  
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser  
 340 345 350  
 Leu Ser Leu His Gly Ile Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys  
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 370 375 380  
 Pro  
 385

<210> 5273  
 <211> 4580  
 <212> DNA  
 <213> Homo sapiens

<400> 5273  
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 4580

&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

Met Ser Gly Ser Phe Glu Leu Ser Val Gln Asp Leu Asn Asp Leu Leu  
 1 5 10 15  
 Ser Asp Gly Ser Gly Cys Tyr Ser Leu Pro Ser Gln Pro Cys Asn Glu  
 20 25 30  
 Val Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile  
 35 40 45  
 Pro Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu  
 50 55 60  
 Gly Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp

```

65          70          75          80
Ser Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe
      85          90          95
Asn Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala
      100        105        110
Leu Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr
      115        120        125
Ser Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys
      130        135        140
Met Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile
      145        150        155        160
Gly Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg
      165        170        175
Leu Ala Lys Glu Gly Lys Leu Lys Pro
      180        185

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<210> 5275  
 <211> 810  
 <212> DNA  
 <213> Homo sapiens

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<400> 5275
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120
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180
tatctgctac ggtaacttca tcagcccgcc aagatggcga tgcaagcggc caagagggcg
240
aacattcgac ttccacctga agtaaatcgg atattgtata taagaaattt gccatacaaa
300
atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatcaga
360
gtggggaaca cacctgaaac tagaggaaca gcttatgttg tctatgagga catctttgat
420
gccaagaatg catgtgatca cctatcggga ttcaatgttt gtaacagata ccttgtgggtt
480
ttgtactata atgccaacag ggcatttcag aagatggaca caaagaagaa ggaggaacag
540
ttgaagcttc tcaaggagaa atatggcatc aacacagatc caccaaaata aatgttttct
600
acattttcat ttggactaaa tcccacgaat gacaactacc accttttttt cctttttaat
660
taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
720
acatattgga atacattatg ttaataaaact ttagcttttt tgtgaaacaa aaaaaaaaag
780
tcgacgcggc cggcaattta gtagtagtag
810

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<210> 5276  
 <211> 125  
 <212> PRT

<213> Homo sapiens

<400> 5276

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Met Ala Met Gln Ala Ala Lys Arg Ala Asn Ile Arg Leu Pro Pro Glu
 1           5           10           15
Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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gtggcgccca tcaeggccac ggagctgctc atcgtggtga agtacgaccc ccacacgctc
120
accctgtccc tgcccttcta catctcccag tgctggaccc tgggtccgt cctggcgctc
180
acctggaccg tctggcgctt ctctctgcgg gacatcacat tgaggtacaa ggagaccggg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
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360
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420
gcctcctcct gtgtgagtc caccaggagc cactgcccgc gccttgcctt caagggtttt
480
tgcttttttc ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg ccccgacaca
540
gcctcatctc catgtgtaca cgtgtgtacg tgtgtatgcg tgtgtgtacg tgtgtatgcg
600
tgtgtgtacg tg
612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens



&lt;400&gt; 5278

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Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
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Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
115          120

```

&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

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60
cctgactttc agctgcaggc catgattcag gcagcaggaa agcttggtgtt gattgataaa
120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
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240
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gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
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420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
540
gttcttcaga catcaaccga aaggcgcgca ccaatgggta cagcactctc aaaaatggag
600
gtggaggacc tactccggaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
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780
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840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgcgtgaga
900

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 960  
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 tacctccgag cggagtgttt ccgggttagag aagaacctgc tcatctttgg ctggggccgg  
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 1140  
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 1225

&lt;210&gt; 5280

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5280

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1				5					10					15	
Ser	Pro	Asp	Ala	Pro	Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala
			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35					40					45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55				60					
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90					95		
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115				120					125				
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130				135					140					
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155					160
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170					175		
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
			180					185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
	195					200					205				
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210				215					220					
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230				235					240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250					255		
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
		260						265				270			
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

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      275              280              285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
      290              295              300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
      405

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<210> 5281  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

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<400> 5281
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120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcattg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtcttcacc aaacctggag cagatcacga ttgggaaaac ctagagaaaag
300
acttgagatt gctcattaat ggggattatg aagaag
336

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<210> 5282  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

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<400> 5282
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Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20              25              30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35              40              45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50              55              60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65              70              75              80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283  
<211> 1989  
<212> DNA  
<213> Homo sapiens

<400> 5283  
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120  
atggatggca tcattgaaca gaagagcatg ctggtgcaca gtaaaatcag tgatgctggc  
180  
aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg  
240  
tctgtttacc cagcgcccca gtaccagagc caccgggtgg gggccagcac agtgccggcc  
300  
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360  
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420  
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480  
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540  
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gccagtcccc agagtggcac cgcattagca atatacaaac agtccaaaaa agtgtttatt  
1260  
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1380

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 1920  
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&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

Met	Asp	Gly	Ile	Ile	Glu	Gln	Lys	Ser	Met	Leu	Val	His	Ser	Lys	Ile
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Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
		50				55					60				
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70				75					80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
145				150					155					160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180					185					190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215					220					
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225				230					235					240	
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
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His	Leu														

&lt;210&gt; 5285

&lt;211&gt; 2155

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5285

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1140

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 1980  
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<210> 5286

<211> 628

<212> PRT

<213> Homo sapiens

<400> 5286

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Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
		20					25						30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
	35					40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
	50				55					60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65				70					75					80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
		85					90						95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

100 105 110  
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu  
 115 120 125  
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr  
 130 135 140  
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser  
 145 150 155 160  
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu  
 165 170 175  
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met  
 180 185 190  
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His  
 195 200 205  
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly  
 210 215 220  
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val  
 225 230 235 240  
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu  
 245 250 255  
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser  
 260 265 270  
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg  
 275 280 285  
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile  
 290 295 300  
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val  
 305 310 315 320  
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys  
 325 330 335  
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala  
 340 345 350  
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe  
 355 360 365  
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met  
 370 375 380  
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val  
 385 390 395 400  
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln  
 405 410 415  
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu  
 420 425 430  
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys  
 435 440 445  
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu  
 450 455 460  
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala  
 465 470 475 480  
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp  
 485 490 495  
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn  
 500 505 510  
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg  
 515 520 525  
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys



530                      535                      540  
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu  
 545                      550                      555                      560  
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp  
                     565                      570                      575  
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly  
                     580                      585                      590  
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln  
                     595                      600                      605  
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser  
                     610                      615                      620  
 Ser Met Asp Phe  
 625

&lt;210&gt; 5287

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5287

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 120  
 tcgggagcgg agttgcagaa tccaaggacc cattttgttc tttctccgca ctgctttatg  
 180  
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 240  
 tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag  
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 420  
 tctaccatgg aaattttatt ggactttgtg tacacagaaa cgggtacatgt gacagtggag  
 480  
 aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaagggtg gaaacaagcc  
 540  
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 581

&lt;210&gt; 5288

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5288

Xaa Glu Pro Pro Glu Pro Pro Gly Leu Gly Gly Ala Ser Ala Pro Pro  
 1                      5                      10                      15  
 Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly  
                     20                      25                      30  
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro  
                     35                      40                      45  
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50                      55                      60  
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn  
 65                      70                      75                      80  
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu  
                     85                      90                      95  
 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala  
                     100                      105                      110  
 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys  
                     115                      120                      125  
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu  
                     130                      135                      140  
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu  
 145                      150                      155                      160  
 Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly  
                     165                      170                      175  
 Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser  
                     180                      185                      190  
 Arg

<210> 5289  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<400> 5289  
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 120  
 caatgaggat actgcttcag cttctgaagg ggaagtatat gataggggtcc tgaagaaact  
 180  
 tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca  
 240  
 ggatgttcag ctaaaagtaa aaacctactt gcttggaact gatttgtcta tattcaaata  
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 c  
 361

<210> 5290  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 5290  
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 Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu  
                     20                      25                      30  
 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His  
                     35                      40                      45  
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

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      50              55              60
Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe
65              70              75              80
Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe
      85              90              95

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<210> 5291  
 <211> 767  
 <212> DNA  
 <213> Homo sapiens

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<400> 5291
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120
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240
acactgcctg ccacctgcgg tttaccaccc atggttggett ctgtggctgg tgggctccaa
300
gcagggctgg atggggagag caggggctgg agtggaggca gggggcagcc ccaccaggc
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agagggccac ctctgtggg gcacacagac acaggcagag acatgcgagg gcacgcacgc
660
atgcacagag aaaccactcc cacagagaca ggccacatgg aggagagacc agagagaaaa
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767

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<210> 5292  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

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<400> 5292
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Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu
      20              25              30
Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
      35              40              45
Met Val Ala Ser Val Ala Gly Leu Gln Ala Gly Leu Asp Gly Glu
      50              55              60
Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

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65		70		75		80									
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg	Ala
				85					90					95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His	Ser
			100					105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp	His
		115					120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser		
	130					135					140				

<210> 5293  
 <211> 1428  
 <212> DNA  
 <213> Homo sapiens

<400> 5293  
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 180  
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 aaaaaggatg atattggacg aaggaatggg caagctccaa atgagaagat gaagcaagtg  
 660  
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 720  
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 960  
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 1020  
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 1320  
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 1380  
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 1428

<210> 5294  
 <211> 290  
 <212> PRT  
 <213> Homo sapiens

<400> 5294  
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 Arg Val Tyr Asn Gly Arg Leu Lys Val Gln Arg Leu Cys Ser Glu Met  
 35 40 45  
 Glu Glu Leu Ala Glu His Gly Ile Phe Leu Pro Pro Asn Met Gln Gly  
 50 55 60  
 Leu Thr Asp Asp Gln Ile Glu Glu Leu Lys Leu Lys Asp Glu Trp Gly  
 65 70 75 80  
 Glu Lys Cys Val Pro Ser Gly Gly Ala Val Phe Lys Lys Asp Asp Ile  
 85 90 95  
 Gly Arg Arg Asn Gly Gln Ala Pro Asn Glu Lys Met Lys Gln Val Leu  
 100 105 110  
 Lys Lys Thr Ile Glu Glu Ala Lys Ala Ile Ile Ser Lys Lys Gln Val  
 115 120 125  
 Glu Ala Gly Val Cys Val Thr Met Glu Met Val Lys Asp Ala Leu Asp  
 130 135 140  
 Gln Leu Arg Gly Ala Val Met Ile Val Tyr Pro Met Gly Leu Pro Pro  
 145 150 155 160  
 Tyr Asp Pro Ile Arg Met Glu Phe Glu Asn Lys Glu Asp Leu Ser Gly  
 165 170 175  
 Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu Trp  
 180 185 190  
 Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr Val  
 195 200 205  
 Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg Gly  
 210 215 220  
 Gln Gly Ala Pro Ala Arg Glu Pro Ile Ile Ser Ser Glu Glu Gln Lys  
 225 230 235 240  
 Gln Leu Met Leu Tyr Tyr His Arg Arg Gln Glu Glu Leu Lys Arg Leu  
 245 250 255  
 Glu Glu Asn Asp Asp Asp Ala Tyr Leu Asn Ser Pro Trp Ala Asp Asn  
 260 265 270  
 Thr Ala Leu Lys Arg His Phe His Gly Val Lys Asp Ile Lys Trp Arg  
 275 280 285  
 Pro Arg

290

&lt;210&gt; 5295

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5295

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120  
gacagtaacg agcagtgtctg gccggggccc actttcagag ggggcggaag ggcattctga  
180  
cacgtgtcat atggttaagag ggcgcatccac tcacccaggc ctggtgcagg actctgcaag  
240  
gccctcctga gtaaagagtg gccacgaagg gctgctaggc agcacctact cttggaatca  
300  
agcagggaaa aagtgcataa ttggagctgg cgggaggtgt gtgtgcctgc cccacagatg  
360  
gctgtgtgta gccacaaagc accaagattc tgttcttcat tcagcaacca cccatgagcc  
420  
tcctgtctta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa  
480  
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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

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Ala	Trp	Thr	Ala	Pro	Ser	Thr	Ser	Gln	Lys	Cys	Asp	Glu	Pro	Leu	Val
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Ser	Gly	Leu	Pro	His	Val	Ala	Phe	Ser	Ser	Ser	Ser	Ser	Ile	Ser	Gly

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 Ser Ser Ser Asp Trp Val Thr Gln Tyr Arg Met Leu Tyr Ser Asp Thr  
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 Gly Arg Asn Trp Lys Pro Tyr His Gln Asp Gly Asn Ile Trp Ala Phe  
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 Pro Gly Asn Ile Asn Ser Asp Gly Val Val Arg His Glu Leu Gln His  
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 Pro Ile Ile Ala Arg Tyr Val Arg Ile Val Pro Leu Asp Trp Asn Gly  
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 Glu Gly Arg Ile Gly Leu Arg Ile Glu Val Tyr Gly Cys Ser Tyr Trp  
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 Ala Asp Val Ile Asn Phe Asp Gly His Val Val Leu Pro Tyr Arg Phe  
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 Arg Asn Lys Lys Met Lys Thr Leu Lys Asp Val Ile Ala Leu Asn Phe  
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 Gly Asp Tyr Ile Thr Leu Glu Leu Lys Lys Ala Lys Leu Val Leu Ser  
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 Val Met Thr Gly Ser Leu Leu Asp Asp His His Trp His Ser Val Val  
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 Leu Leu Ile Asp Leu Thr Trp Thr His Arg Gly Gly Lys Thr Cys Gly  
 20 25 30  
 Asp His His Arg Gly His Gly Pro Thr Ser Val Ile Trp Glu Thr Gly  
 35 40 45  
 Leu Gly Arg Gly Gly Asp Phe Pro Lys Ser Pro Ser Ile His Asp Arg  
 50 55 60  
 Gly Arg Ala Trp Glu Leu Gly Thr Gln Gly Ser Ser Lys Arg Ser Arg  
 65 70 75 80  
 Ser Leu Cys Tyr Pro Gln Ile His Lys Leu Arg Ile Thr Cys Ile His  
 85 90 95  
 Phe Pro Pro Pro Trp Thr Leu Cys Phe Glu Leu Phe Cys Leu Pro Asp  
 100 105 110

<210> 5309  
 <211> 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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aacgccggcc actctaggat cctcactcgg ggagaggagg catagctcgc ggggtcaccc  
120  
tccacccgca acgtactccg ggtcggcctt gcgctcgggg cctgagaggg gcggcggcgg  
180  
ggtcaggggc cgcacaaaga atgaaccagc agtgaagag aaaatactgt aagctggctg  
240  
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300  
atgatggctg gctgtggtga aattgatcat tcaataaaca tgcttcctac aaacaggaaa  
360  
gcgaacgagt cctgttctaa tactgcacct tctttaaccg tcctgaatg tgccatttgt  
420  
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720  
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780  
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840  
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gcggacagtg tatcagcaca gagtggagct tctgttcagc ccctagtgtc ttctgtaagg  
960  
cccctaacat cagtagatgg tcagttaaca agccctgcaa caccatcccc tgatgcaagc  
1020  
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1080  
agtcataggg gagaaggaga agaagatcat gaatcaccat cttcaggcag ggtaccagca  
1140  
ccagacacct ccattgaaga aactgaatca gatgccagta gtgatagtga ggatgtatct  
1200  
gcagttgttg cacagcactc cttgacccaa cagagacttt tggtttctaa tgcaaaccag  
1260  
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1320  
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1380  
ataaaaatgt cttcagctcc atgctcaagg ttgaaagggt tacctgtaaa tttctgcca  
1440  
cataacatta tactcatccc tagtagtgca ttttgggagt tggggtggga aggggtatgg  
1500



gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tattaatgt  
 1560  
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 1620  
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 1680  
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 1920  
 ttgtaacaca cttcatgggtg ttcccatagg ctttctgtc tagtcttata gtttgagggt  
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 2078

&lt;210&gt; 5310

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5310

Met	Met	Ala	Gly	Cys	Gly	Glu	Ile	Asp	His	Ser	Ile	Asn	Met	Leu	Pro
1			5					10					15		
Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
			35				40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50				55					60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
	65				70					75				80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
			115				120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
	145				150					155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180					185					190		
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195						200					205			
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

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      210              215              220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
225              230              235              240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
      325              330              335
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
      340              345              350
Gln Cys Thr Val Thr Glu Val
      355

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<210> 5311  
 <211> 572  
 <212> DNA  
 <213> Homo sapiens

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<400> 5311
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120
tgcgagctct gcaagtatga gttcatcatg gagaccaagc tgaagccact gagaaaatgg
180
gagaagtgtc agatgacgtc cagcgagcgc aggaagatca tgtgctcagt gacattccac
240
gtcattgcca tcacatgtgt ggtctggtcc ttgtatgtgc tcattgaccg tctgtctgag
300
gagatcaagc aggggcaggc aacaggaatc ctagaatggc ccttttggac taaattggtg
360
gttgtggcca tcggcttcac cagaggactt ctttttatgt atgttcagt taaagtgtat
420
gtgcaattgt ggaagagact caaggcctat aatagagtga tctatgttca aaactgtcca
480
gaaacaagca aaaagaatat ttttgaaaaa tctccactaa cagagcccaa ctttgaaaat
540
aaacatggat atggaatctg tcattccgac ac
572

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<210> 5312  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

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<400> 5312
Cys His Cys Glu Gly Asp Asp Glu Ser Pro Leu Ile Thr Pro Cys His

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```

      1           5           10           15
Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

```

&lt;210&gt; 5313

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5313

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cggggcccgc gagaggaaga ggggtgacaag cgcagcgttg cccccagac tcgggtcctg
60
aaaggcgctca tgcgagtagg catcctggcg aaaggcctcc tcctgcgtgg ggacaggaac
120
gtgcgcctcg ctctgctctg ctccgagaag cccacgcaca gcctgctgcy gaggatcgcc
180
cagcagctgc cccggcaaca caggcaattc cacgttgtgt gcgactggcc tgtgcatatg
240
gaggtgttca gtgacctggc cctggacact cctgctaaca ggacacacac atactctctt
300
acacacatac atgtccacac ac
322

```

&lt;210&gt; 5314

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5314

```

Arg Gly Arg Arg Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
      1           5           10           15
Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
      20           25           30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

```



acactgtcgc acactcagag cctggagacg ctgaacctgg gccacaaccc catcgggaaac  
 1200  
 gaggggtgtgc ggcacctcaa gaacgggctc atcagcaacc gcagcgtgct gcgcctcggg  
 1260  
 ctggcctcca ccaagctcac gtgcgagggc gcggtggcgg tggcggagtt catcgtgag  
 1320  
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 1380  
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 1440  
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 1500  
 cagaacggct gcaagcgcaa cttggtgctg gcgcgggaga gggaggagaa ggagcagccg  
 1560  
 ccacagctgt cggcctccat gcctgagacc accgccaccg agccccagcc cgacgcagag  
 1620  
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 1680  
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 1800  
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 1860  
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 1920  
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 1980  
 gggcaggaga cactgtgaca ctttaggtga ggccaggccc gggggccaca gactcggga  
 2040  
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 2100  
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 2160  
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 2220  
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 2280  
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 2298

&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

Gln	Asn	Val	Thr	Val	Asp	Glu	Val	Ile	Gly	Ala	Tyr	Lys	Gln	Ala	Cys
1				5					10					15	
Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
		20						25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
		35				40					45				
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

50	55	60
Arg Leu Gln Phe Lys Val Val Asp Leu Glu Gln Thr Asn Leu Asp Glu		
65	70	75
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala		80
	85	90
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp		95
	100	105
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu		110
	115	120
Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala		125
	130	135
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn		140
145	150	155
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys		160
	165	170
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn		175
	180	185
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys		190
	195	200
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly		205
	210	215
Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val		220
225	230	235
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe		240
	245	250
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu		255
	260	265
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly		270
	275	280
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys		285
	290	295
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser		300
305	310	315
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly		320
	325	330
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu		335
	340	345
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe		350
	355	360
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys		365
	370	375
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro		380
385	390	395
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro		400
	405	410
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala		415
	420	425
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu		430
	435	440
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp		445
	450	455
Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Pro Glu Pro Pro		460
465	470	475
Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu		480

				485					490				495			
Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser	
			500					505					510			
Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu	
		515					520					525				
Glu	Glu	Leu	Leu	Leu	Glu	Ala	Ser	Gln	Glu	Ser	Gly	Gln	Glu	Thr	Leu	
		530				535					540					

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<210> 5317
<211> 889
<212> DNA
<213> Homo sapiens
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<400> 5317
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120
cagccttctt gcccgcccg cagctctgga agtggtcggg gaatcccaca cagcggcgtg
180
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240
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300
gccgcatcga gagcatgtgg gagtcgtggg gcagcaacat ggtggtcaag gtcaagtgg
360
tctaccacc tgaggagacc aagctgggca agcagttcca ccagggccag cactgggacc
420
aagagtccag ccgcagcctc ccggcgccgc tgcgggtctc cagccagagg aaggacttca
480
tggagcgcgc gctataccag tcctcgcgat tggacgaaaa tgacgtgcag acgggtgtgc
540
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600
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780
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889

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<210> 5318
<211> 132
<212> PRT
<213> Homo sapiens
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<400> 5318  
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1 5 10 15  
Arg Pro Cys Val Ser Gly Thr Val Pro Ser Ser Cys Gln Leu Gly Gly

```

      20      25      30
Pro Thr Ser Pro Thr Ser Ala Ala Ser Arg Ala Cys Gly Ser Arg Gly
      35      40      45
Ala Ala Thr Trp Trp Ser Arg Ser Ser Gly Ser Thr Thr Leu Arg Arg
      50      55      60
Pro Ser Trp Ala Ser Ser Ser Thr Arg Ala Ser Thr Gly Thr Arg Ser
65      70      75      80
Pro Ala Ala Ala Ser Arg Arg Pro Cys Gly Ser Pro Ala Arg Gly Arg
      85      90      95
Thr Ser Trp Ser Ala Arg Tyr Thr Ser Pro Arg Met Trp Thr Lys Met
      100      105      110
Thr Cys Arg Arg Cys Arg Thr Ser Ala Trp Trp Trp Ala Trp Ser Ser
      115      120      125
Met Ser Arg Cys
      130

```

&lt;210&gt; 5319

&lt;211&gt; 4231

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5319

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240
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540
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780
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960

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Arg Gln Pro Val Pro Gly Arg Asp Gly Pro Leu Arg Val Ser Arg Gly
      180      185      190
Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln
      195      200      205
Ala Gly Tyr Pro Leu Thr Glu Asp Met Asn Gly Phe Gln Gln Glu Gly
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Phe Gly Trp Met Asp Met Thr Ile His Glu
      225      230

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&lt;210&gt; 5327

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5327

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&lt;210&gt; 5328

&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

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Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
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Ala	Thr	Trp	Val	Phe	Val	Ala	Thr	Trp	Tyr	Arg	Val	Thr	Phe	Phe	Gly		
				85					90						95		
Gly	Ser	Ser	Ser	Ser	Pro	Val	Asn	Thr	Phe	Gln	Thr	Val	Leu	Ile	Thr		
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Asp	Gly	Lys	Leu	Ser	Phe	Thr	Ile	Phe	Asn	Tyr	Glu	Ser	Ile	Val	Trp		
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Phe	Ser	Ile	Pro	Gly	Ser	Arg	Thr	Ala	Asp	Met	Ala	Glu	Val	Glu	Thr		
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Pro	Ala	Gly	Phe	Gly	Gly	Pro	Thr	Cys	Glu	Thr	Ala	Gln	Ser	Pro	Cys		
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Asp	Thr	Lys	Glu	Cys	Gln	His	Gly	Gly	Gln	Cys	Gln	Val	Glu	Asn	Gly		
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Ser	Ala	Val	Cys	Val	Cys	Gln	Ala	Gly	Tyr	Thr	Gly	Ala	Ala	Cys	Glu		
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Met	Asp	Val	Asp	Asp	Cys	Ser	Pro	Asp	Pro	Cys	Leu	Asn	Gly	Gly	Ser		
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Lys	Gly	Leu	Arg	Cys	Glu	Thr	Gly	Asp	His	Pro	Val	Pro	His	Ala	Cys		
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Leu	Ser	Ala	Pro	Cys	His	Asn	Gly	Gly	Thr	Cys	Val	Asp	Ala	Asp	Gln		
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Gly	Tyr	Val	Cys	Glu	Cys	Pro	Glu	Gly	Phe	Met	Gly	Leu	Asp	Cys	Arg		
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Glu	Arg	Val	Xaa	Pro	Met	Thr	Val	Ser	Ala	Ala	Thr	Glu	Ala	Asp	Ala		
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Trp	Ala	Pro	Thr	Pro	Pro	Ser	Ala	His	Al								

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Gly	Gly	Thr	Cys	Lys	Glu	Ala	Gly	Gly	Glu	Tyr	His	Cys	Ser	Cys	Pro
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Tyr	Arg	Phe	Thr	Gly	Arg	His	Cys	Glu	Ile	Gly	Lys	Pro	Asp	Ser	Cys
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Ala	Ser	Gly	Pro	Cys	His	Asn	Gly	Gly	Thr	Cys	Phe	His	Tyr	Ile	Gly
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Lys	Tyr	Lys	Cys	Asp	Cys	Pro	Pro	Gly	Phe	Ser	Gly	Arg	His	Cys	Glu
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Ile	Ala	Pro	Ser	Pro	Cys	Phe	Arg	Ser	Pro	Cys	Val	Asn	Gly	Gly	Thr
595				600				605							
Cys	Glu	Asp	Arg	Asp	Thr	Asp	Phe	Phe	Cys	His	Cys	Gln	Ala	Gly	Tyr
610				615				620							
Met	Gly	Arg	Arg	Cys	Gln	Ala	Glu	Val	Asp	Cys	Gly	Pro	Pro	Glu	Glu
625				630				635				640			
Val	Lys	His	Ala	Thr	Leu	Arg	Phe	Asn	Gly	Thr	Arg	Leu	Gly	Ala	Val
645				650				655							
Ala	Leu	Tyr	Ala	Cys	Asp	Arg	Gly	Tyr	Ser	Leu	Ser	Ala	Pro	Ser	Arg
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Ile	Arg	Val	Cys	Gln	Pro	His	Gly	Val	Trp	Ser	Glu	Pro	Pro	Gln	Cys
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<210> 5329
<211> 2582
<212> DNA
<213> Homo sapiens
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300
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480
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600
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720  
gtttatactc ataacctata ttacctagct caagtctacc agcatctgga aatgtttgag  
780  
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1860  
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1920  
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1980  
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 2582

&lt;210&gt; 5330

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5330

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 50 55 60  
 Glu Glu Lys Val Ser Tyr Leu Arg Pro Leu Asp Phe Glu Glu Ala Arg  
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 Phe Gln Ile Asp Gly Tyr Val Thr Asp His Ile Glu Val Val Gln Asp  
 100 105 110  
 His Ser Ala Leu Phe Lys Val Leu Ala Phe Phe Glu Thr Asp Met Glu  
 115 120 125  
 Arg Arg Cys Lys Met His Lys Arg Arg Ile Ala Met Leu Glu Pro Leu  
 130 135 140  
 Thr Val Asp Leu Asn Pro Gln Tyr Tyr Leu Leu Val Asn Arg Gln Ile  
 145 150 155 160  
 Gln Phe Glu Ile Ala His Ala Tyr Tyr Asp Met Met Asp Leu Lys Val  
 165 170 175  
 Ala Ile Ala Asp Arg Leu Arg Asp Pro Asp Ser His Ile Val Lys Lys  
 180 185 190  
 Ile Asn Asn Leu Asn Lys Ser Ala Leu Lys Tyr Tyr Gln Leu Phe Leu  
 195 200 205  
 Asp Ser Leu Arg Asp Pro Asn Lys Val Phe Pro Glu His Ile Gly Glu  
 210 215 220  
 Asp Val Leu Arg Pro Ala Met Leu Ala Lys Phe Arg Val Ala Arg Leu  
 225 230 235 240  
 Tyr Gly Lys Ile Ile Thr Ala Asp Pro Lys Lys Glu Leu Glu Asn Leu  
 245 250 255  
 Ala Thr Ser Leu Glu His Tyr Lys Phe Ile Val Asp Tyr Cys Glu Lys

	260		265		270										
His	Pro	Glu	Ala	Ala	Gln	Glu	Ile	Glu	Val	Glu	Leu	Glu	Leu	Ser	Lys
	275					280						285			
Glu	Met	Val	Ser	Leu	Leu	Pro	Thr	Lys	Met	Glu	Arg	Phe	Arg	Thr	Lys
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<210> 5331  
 <211> 1069  
 <212> DNA  
 <213> Homo sapiens

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<210> 5332  
 <211> 61  
 <212> PRT



<213> Homo sapiens

<400> 5332

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			20				25						30		
Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
		35					40					45			
Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Xaa	Gly	Arg	Gly			
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<210> 5333

<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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300  
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360  
tgtgagatgg gcctgcagct ccgccagact ttccaagcag ccacccctcac acagctgcac  
420  
ccacgctccc agattgatat ctatgtgcag gtgctacagg cagatgggtgg gacctatgca  
480  
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<210> 5334

<211> 269

<212> PRT

<213> Homo sapiens

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 35 40 45  
 Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly Ser Ala Tyr  
 50 55 60  
 Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr Gly Pro His  
 65 70 75 80  
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val  
 85 90 95  
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg  
 100 105 110  
 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg  
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 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln  
 130 135 140  
 Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly Thr Tyr Ala  
 145 150 155 160  
 Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro  
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 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr  
 180 185 190  
 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln  
 195 200 205  
 Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala Leu Leu Glu  
 210 215 220  
 Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val Leu Glu Ala  
 225 230 235 240  
 Ala Ala Gln Ala Ala Arg Asp Val His Thr Leu Leu Asp Arg Val Val  
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 Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp  
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&lt;210&gt; 5335

&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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<213> Homo sapiens

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&lt;211&gt; 2742

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5337

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<213> Homo sapiens

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Asn	Lys	His	His	Pro	Asp	Leu	His	Leu	Trp	Ala	Cys	Ser	Gly	Lys	Arg
		180					185					190			
Lys	Asp	Gln	Asp	Gln	Ile	Ile	Ala	Gly	Val	Glu	Lys	Lys	Ile	Ala	Gln
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<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 5342

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5342

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 Ser Leu Ala Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu  
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      165      170      175
Leu Leu Val Leu Ala Ser Gln Ala Val Pro Ala Leu Cys Met Trp Leu
      180      185      190
Gly Leu Ala Lys Leu Gly Cys Pro Thr Ala Trp Ile Asn Pro His Gly
      195      200      205
Arg Gly Met Pro Leu Ala His Ser Val Leu Ser Ser Gly Ala Arg Val
      210      215      220
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Ala Ile Leu Thr His Glu Arg Val Leu Gln Met Ser Lys Met Leu Ser
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Tyr His Val Met Gly Leu Val Val Gly Ile Leu Gly Cys Leu Asp Leu
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Gly Ala Thr Cys Val Leu Ala Pro Lys Phe Ser Thr Ser Cys Phe Trp
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Asp Asp Cys Arg Gln His Gly Val Thr Val Ile Leu Tyr Val Gly Glu
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His Thr Val Arg Leu Ala Met Gly Asn Gly Leu Arg Ala Asp Val Trp
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Glu Thr Phe Gln Gln Arg Phe Gly Pro Ile Arg Ile Trp Glu Val Tyr
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Gly Ser Thr Glu Gly Asn Met Gly Leu Val Asn Tyr Val Gly Arg Cys
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      465      470      475      480
Gln Gly Phe Cys Ile Pro Val Gly Leu Gly Glu Pro Gly Leu Leu Leu
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Thr Lys Val Val Ser Gln Gln Pro Phe Val Gly Tyr Arg Gly Pro Arg
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Glu Leu Ser Glu Arg Lys Leu Val Arg Asn Val Arg Gln Ser Gly Asp
      515      520      525
Val Tyr Tyr Asn Thr Gly Asp Val Leu Ala Met Asp Arg Glu Gly Phe

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 Leu Gln Gln Val Asn Val Tyr Gly Val Cys Val Pro Gly Cys Glu Gly  
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 Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp  
                     595                      600                      605  
 Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala  
                     610                      615                      620  
 Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr  
 625                      630                      635                      640  
 Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly  
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 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro  
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 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp  
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 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
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&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

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Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe				80
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Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser				
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Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln				
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Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys				
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Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala				
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Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys				160
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Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu				
	180		185	190
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu				
	195		200	205
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala				
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Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile				
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Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe				
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Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile				
	260		265	270
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu				
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Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser				
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Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp				
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Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His				
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Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val				
465		470		475
Thr Leu Asn Gly Ser Thr Val Pro Leu Gly Pro Ala Ser Asp Thr Gly				480



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 <212> PRT  
 <213> Homo sapiens

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 50 55 60  
 Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu  
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 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu  
 165 170 175  
 Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn  
 180 185 190  
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 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln  
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 225 230 235 240  
 Ala Glu Lys Thr Thr Glu Ser Arg Asn Glu Arg His Leu Asn Gly Thr  
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 260 265 270  
 Pro Glu Asn Ser Leu Glu Gly Ile Ser Leu Gly Asp Ile Pro Leu Pro  
 275 280 285  
 Gly Ser Ile Ser Asp Gly Met Asn Ser Ser Ala His Tyr His Val Asn  
 290 295 300  
 Phe Ser Gln Ala Ile Ser Gln Asp Val Asn Leu His Glu Ala Ile Leu  
 305 310 315 320  
 Leu Cys Pro Asn Asn Thr Phe Arg Arg Asp Pro Thr Ala Arg Thr Ser  
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 Gln Ser Gln Glu Pro Phe Leu Gln Leu Asn Ser His Thr Thr Asn Pro

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Glu Gln Thr Leu Pro Gly Thr Asn Leu Thr Gly Phe Leu Ser Pro Val
      355      360      365
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      370      375      380
Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu
385      390      395      400
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
      405      410      415
Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
      420      425      430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
      435      440      445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
      450      455      460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
465      470      475      480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
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Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
      500      505      510
Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
      515      520      525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
      530      535      540
Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
545      550      555      560
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
      565      570      575Leu Ile Arg
Asp Ile Arg Arg Arg Gly Lys Asn Lys Val Ala Ala
      580      585      590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
      595      600      605
Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln
      610      615      620
Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp
625      630      635      640
Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro
      645      650      655
Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
      660      665      670
Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr
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Gln Lys Gly Lys Arg Lys
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&lt;210&gt; 5349

&lt;211&gt; 425

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5349

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 35 40 45  
 His Lys Val Ser Ser Gln Glu Gly Glu Arg Ile Pro Leu Pro Gly  
 50 55 60  
 Lys Ala Glu Val Arg Glu Ala Gly Gln Pro Ile Pro Val Ser Leu Leu  
 65 70 75 80  
 Leu Leu Ser Pro Lys Lys Ala Leu Thr Leu Leu Ala Thr Ala Gln Gly  
 85 90 95  
 Gly His Glu Gly Leu Gly Arg Leu Leu Trp Gln Ser Gly Pro Leu Gln  
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<212> PRT

<213> Homo sapiens

<400> 5352

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Trp	Ser	Gly	Leu	Gly	Leu	Gly	Phe	Lys	Leu	Ser	Asn	Ser	Glu	Arg	Arg
		20						25					30		
Asn	Cys	Asp	Thr	Arg	Asn	Gly	Ser	Asn	Lys	Ser	Asp	Phe	Asp	Trp	His
		35					40					45			
Gln	Asp	Ala	Leu	Ser	Lys	Ser	Leu	Gln	Gln	Asn	Leu	Pro	Ser	Arg	Ser
	50					55					60				
Val	Ser	Lys	Pro	Ser	Leu	Phe	Ser	Ser	Val	Gln	Leu	Tyr	Arg	Gln	Ser
65					70				75					80	
Ser	Lys	Met	Cys	Gly	Thr	Val	Phe	Thr	Gly	Ala	Ser	Arg	Phe	Arg	Cys
			85					90					95		
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<210> 5353

<211> 4217<212> DNA

<213> Homo sapiens

<400> 5353

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<210> 5354

<211> 605

<212> PRT

<213> Homo sapiens

<400> 5354

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			20					25					30		
Asn	Glu	Pro	Gly	Glu	Thr	Thr	Gln	Ile	Thr	Tyr	His	Gln	Leu	Leu	Val
		35					40					45			
Gln	Val	Cys	Gln	Phe	Ser	Asn	Val	Leu	Arg	Lys	Gln	Gly	Ile	Gln	Lys
	50					55					60				
Gly	Asp	Arg	Val	Ala	Ile	Tyr	Met	Pro	Met	Ile	Pro	Glu	Leu	Val	Val
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Ala	Met	Leu	Ala	Cys	Ala	Arg	Ile	Gly	Ala	Leu	His	Ser	Ile	Val	Phe
			85						90				95		
Ala	Gly	Phe	Ser	Ser	Glu	Ser	Leu	Cys	Glu	Arg	Ile	Leu	Asp	Ser	Ser
			100					105					110		
Cys	Ser	Leu	Leu	Ile	Thr	Thr	Asp	Ala	Phe	Tyr	Arg	Gly	Glu	Lys	Leu
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Val	Asn	Leu	Lys	Glu	Leu	Ala	Asp	Glu	Ala	Leu	Gln	Lys	Cys	Gln	Glu
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Lys	Gly	Phe	Pro	Val	Arg	Cys	Cys	Ile	Val	Val	Lys	His	Leu	Gly	Arg
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Ala	Glu	Leu	Gly	Met	Gly	Thr	Pro	Pro	Ala	Ser	Pro	Pro	Gln	Leu	Arg
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Gly	His	Ala	Asp	Val	Gln	Ile	Ser	Trp	Asn	Gln	Gly	Ile	Asp	Leu	Trp
		180						185					190		
Trp	His	Glu	Leu	Met	Gln	Glu	Ala	Gly	Asp	Glu	Cys	Glu	Pro	Glu	Trp
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Cys	Asp	Ala	Glu	Asp	Pro	Leu	Phe	Ile	Leu	Tyr	Thr	Ser	Gly	Ser	Thr
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Gly	Lys	Pro	Lys	Gly	Val	Val	His	Thr	Val	Gly	Gly	Tyr	Met	Leu	Tyr
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Val	Ala	Thr	Thr	Phe	Lys	Tyr	Val	Phe	Asp	Phe	His	Ala	Glu	Asp	Val
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Thr	Tyr	Gly	Pro	Leu	Ala	Asn	Gly	Ala	Thr	Ser	Val	Leu	Phe	Glu	Gly

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Tyr Lys Val Thr Lys Phe Tyr Thr Ala Pro Thr Ala Ile Arg Leu Leu
305              310              315              320
Met Lys Phe Gly Asp Glu Pro Val Thr Lys His Ser Arg Ala Ser Leu
      325              330              335
Gln Val Leu Gly Thr Val Gly Glu Pro Ile Asn Pro Glu Ala Trp Leu
      340              345              350
Trp Tyr His Arg Val Val Gly Ala Gln Arg Cys Pro Ile Val Asp Thr
      355              360              365
Phe Trp Gln Thr Glu Thr Gly Gly His Met Leu Thr Pro Leu Pro Val
      370              375              380
Pro Thr Pro Met Lys Pro Gly Ser Ala Thr Phe Pro Phe Phe Gly Val
385              390              395              400
Ala Pro Ala Ile Leu Asn Glu Ser Gly Glu Glu Leu Glu Gly Glu Ala
      405              410              415
Glu Gly Tyr Leu Val Phe Lys Gln Pro Trp Pro Gly Ile Met Arg Thr
      420              425              430
Val Tyr Gly Asn His Glu Arg Phe Glu Thr Thr Tyr Ser Lys Lys Phe
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Pro Gly Tyr Tyr Val Thr Gly Asp Gly Cys Gln Arg Asp Gln Asp Gly
      450              455              460
Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly
465              470              475              480
His Leu Leu Ser Thr Ala Glu Val Glu Ser Ala Leu Val Glu His Glu
      485              490              495
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      500              505              510
Glu Cys Leu Tyr Cys Phe Val Thr Leu Cys Asp Gly His Thr Phe Ser
      515              520              525
Pro Lys Leu Thr Glu Glu Leu Lys Lys Gln Ile Arg Glu Lys Ile Gly
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Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys
545              550              555              560
Thr Arg Ser Gly Lys Ile Met Arg Arg Val Leu Arg Lys Ile Ala Gln
      565              570              575
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Ile Ser His Leu Phe Ser His Arg Cys Leu Thr Ile Gln
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&lt;210&gt; 5355

&lt;211&gt; 1596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5355

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&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

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 65           70           75           80
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Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn
100           105           110
Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys
115           120           125
Glu Ser Val Leu Gly Asn Leu Ala Lys Lys Ala Lys Leu Thr Glu Asp
130           135           140
Leu Phe Asn Gln Val Pro Gly Ile His Cys Asn Pro Leu Gln Gly Ala
145           150           155           160
Met Tyr Ala Phe Pro Arg Ile Phe Ile Pro Ala Lys Ala Val Glu Ala
165           170           175
Ala Gln Ala His Gln Met Ala Pro Asp Met Phe Tyr Cys Met Lys Leu
180           185           190
Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln
195           200           205
Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu
210           215           220
Lys Leu Lys Thr Val Leu Gln Lys Val Lys Asp Phe His Ile Asn Phe
225           230           235           240
Leu Glu Lys Tyr Ala
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&lt;210&gt; 5357

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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420

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&lt;210&gt; 5358

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5358

Ser Gly Ile Cys Arg Leu Val Arg Trp Trp Arg Lys Arg Arg Ser Val

1

5

10

15

Met Gly Ile Gln Thr Ser Pro Val Leu Leu Ala Ser Leu Gly Val Gly

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35	40	45
Ser Arg Arg Pro Gln Val Thr Leu Leu Asp Pro Asn Glu Lys Tyr Leu		
50	55	60
Leu Arg Leu Leu Asp Lys Thr Thr Val Ser His Asn Thr Lys Arg Phe		
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Arg Phe Ala Leu Pro Thr Ala His His Thr Leu Gly Leu Pro Val Gly		
85	90	95
Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg		
100	105	110
Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu		
115	120	125
Val Ile Lys Val Tyr Leu Lys Gly Val His Pro Lys Phe Pro Glu Gly		
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Gly Lys Met Ser Gln Tyr Leu Asp Ser Leu Lys Val Gly Asp Val Val		
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Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr Tyr Thr Gly Lys Gly His		
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Phe Asn Ile Gln Pro Asn Lys Lys Ser Pro Pro Glu Pro Arg Val Ala		
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Lys Lys Leu Gly Met Ile Ala Gly Gly Thr Gly Ile Thr Pro Met Leu		
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Gln Leu Ile Arg Ala Ile Leu Lys Val Pro Glu Asp Pro Thr Gln Cys		
210	215	220
Phe Leu Leu Phe Ala Asn Gln Thr Glu Lys Asp Ile Ile Leu Arg Glu		
225	230	235
Asp Leu Glu Glu Leu Gln Ala Arg Tyr Pro Asn Arg Phe Lys Leu Trp		
245	250	255
Phe Thr Leu Asp His Pro Pro Lys Asp Trp Ala Tyr Ser Lys Gly Phe		
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Val Thr Ala Asp Met Ile Arg Glu His Leu Pro Ala Pro Gly Asp Asp		
275	280	285
Val Leu Val Leu Leu Cys Gly Pro Pro Pro Met Val Gln Leu Ala Cys		
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His Pro Asn Leu Asp Lys Leu Gly Tyr Ser Gln Lys Met Arg Phe Thr		
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Tyr		320

&lt;210&gt; 5359

&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5359

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&lt;210&gt; 5360

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 <212> PRT  
 <213> Homo sapiens

<400> 5360

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 20          25          30
Val Ser Gln Leu Arg Glu Val Tyr Ser Ser Cys Asp Thr Thr Gly Thr
 35          40          45
Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His
 50          55          60
Leu Glu Gln Gln Leu Pro Val Leu Leu Gln Thr Leu Leu Gly Asn Asp
 65          70          75          80
His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala
 85          90          95
Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser
100          105          110
Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn
115          120          125
Gly Ser Lys Trp Tyr Gly Arg Arg Ser Arg Pro Glu Leu Cys Asp Ala
130          135          140
Ala Thr Glu Ala Arg Arg Val Pro Glu Gln Gln Thr Gln Ala Ser Leu
145          150          155          160
Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro
165          170          175
Lys Ser Asp Glu Glu Ala Glu Ser Thr Lys Glu Ala Gln Asn Glu Leu
180          185          190
Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly
195          200          205
Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln
210          215          220
Ile Arg Gly Val Trp Glu Leu Gly Val Gly Ser Ser Gly His Leu
225          230          235          240
Ser Glu Gln Glu Leu Ala Val Val Cys Gln Ser Val Gly Leu Gln Gly
245          250          255
Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp
260          265          270
Gly Asp Gly Lys Val Ser Leu Glu Glu Phe Gln Leu Gly Leu Phe Ser
275          280          285
His Glu Pro Ala Leu Leu Leu Glu Ser Ser Thr Arg Val Lys Pro Ser
290          295          300
Lys Ala Trp Ser His Tyr Gln Val Pro Glu Glu Ser Gly Cys His Thr
305          310          315          320
Thr Thr Thr Ser Ser Leu Val Ser Leu Cys Ser Ser Leu Arg Leu Phe
325          330          335
Ser Ser Ile Asp Asp Gly Ser Gly Phe Ala Phe Pro Asp Gln Val Leu
340          345          350
Ala Met Trp Thr Gln Glu Gly Ile Gln Asn Gly Arg Glu Ile Leu Gln
355          360          365
Ser Leu Asp Phe Ser Val Asp Glu Lys Val Asn Leu Leu Glu Leu Thr
370          375          380
Trp Ala Leu Asp Asn Glu Leu Met Thr Val Asp Ser Ala Val Gln Gln

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          420          425          430
Arg Ala Glu Lys Arg Asn Leu Glu Phe Val Lys Glu Met Asp Asp Cys
          435          440          445
His Ser Thr Leu Glu Gln Leu Thr Glu Lys Lys Ile Lys His Leu Glu
          450          455          460
Gln Gly Tyr Arg Glu Arg Leu Ser Leu Leu Arg Ser Glu Val Glu Ala
465          470          475          480
Glu Arg Glu Leu Phe Trp Glu Gln Ala His Arg Gln Arg Ala Ala Leu
          485          490          495
Glu Trp Asp Val Gly Arg Leu Gln Ala Glu Glu Ala Gly Leu Arg Glu
          500          505          510
Lys Leu Thr Leu Ala Leu Lys Glu Asn Ser Arg Leu Gln Lys Glu Ile
          515          520          525
Val Glu Val Val Glu Lys Leu Ser Asp Ser Glu Arg Leu Ala Leu Lys
          530          535          540
Leu Gln Lys Asp Leu Glu Phe Val Leu Lys Asp Lys Leu Glu Pro Gln
545          550          555          560
Ser Ala Glu Leu Leu Ala Gln Glu Glu Arg Phe Ala Ala Val Leu Lys
          565          570          575
Glu Tyr Glu Leu Lys Cys Arg Asp Leu Gln Asp Arg Asn Asp Glu Leu
          580          585          590
Gln Ala Glu Leu Glu Gly Leu Trp Ala Arg Leu Pro Lys Asn Arg His
          595          600          605
Ser Pro Ser Trp Ser Pro Asp Gly Arg Arg Arg Gln Leu Pro Gly Leu
          610          615          620
Gly Pro Ala Gly Ile Ser Phe Leu Gly Asn Ser Ala Pro Val Ser Ile
625          630          635          640
Glu Thr Glu Leu Met Met Glu Gln Val Lys Glu His Tyr Gln Asp Leu
          645          650          655
Arg Thr Gln Leu Glu Thr Lys Val Asn Tyr Tyr Glu Arg Glu Ile Ala
          660          665          670
Ala Leu Lys Arg Asn Phe Glu Lys Glu Arg Lys Asp Met Glu Gln Ala
          675          680          685
Arg Arg Arg Glu Val Ser Val Leu Glu Gly Gln Lys Ala Asp Leu Glu
          690          695          700
Glu Leu His Glu Lys Ser Gln Glu Val Ile Trp Gly Leu Gln Glu Gln
705          710          715          720
Leu Gln Asp Thr Ala Arg Gly Pro Glu Pro Glu Gln Met Gly Leu Ala
          725          730          735
Pro Cys Cys Thr Gln Ala Leu Cys Gly Leu Ala Leu Arg His His Ser
          740          745          750
His Leu Gln Gln Ile Arg Arg Glu Ala Glu Ala Glu Leu Ser Gly Glu
          755          760          765
Leu Ser Gly Leu Gly Ala Leu Pro Ala Arg Arg Asp Leu Thr Leu Glu
          770          775          780
Leu Glu Glu Pro Pro Gln Gly Pro Leu Pro Arg Gly Ser Gln Arg Ser
785          790          795          800
Glu Gln Leu Glu Leu Glu Arg Ala Leu Lys Leu Gln Pro Cys Ala Ser
          805          810          815
Glu Lys Arg Ala Gln Met Cys Val Ser Leu Ala Leu Glu Glu Glu Glu

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Glu Met Gln Ala Leu Pro Lys Asp Gly Leu Val Ala Gly Ser Gly Gln		
850	855	860
Glu Gly Thr Arg Gly Leu Leu Pro Leu Arg Pro Gly Cys Gly Glu Arg		
865	870	875
Pro Leu Ala Trp Leu Ala Pro Gly Asp Gly Arg Glu Ser Glu Glu Ala		
885	890	895
Ala Gly Ala Gly Pro Arg Arg Arg Gln Ala Gln Asp Thr Glu Ala Thr		
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Gln Ser Pro Ala Pro Ala Pro Ala Pro Ala Ser His Gly Pro Ser Glu		
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Arg Trp Ser Arg Met Gln Pro Cys Gly Val Asp Gly Asp Ile Val Pro		
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Lys Glu Pro Glu Pro Phe Gly Ala Ser Ala Ala Gly Leu Glu Gln Pro		
945	950	955
Gly Ala Arg Glu Leu Pro Leu Leu Gly Thr Glu Arg Asp Ala Ser Gln		
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Thr Gln Pro Arg Met Trp Glu Pro Pro Leu Arg Pro Ala Ala Ser Cys		
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Arg Gly Gln Ala Glu Arg Leu Gln Ala Ile Gln Glu Glu Arg Ala Arg		
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Ser Trp Ser Arg Gly Thr Gln Glu Gln Ala Ser Glu Gln Gln Ala Arg		
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Ala Arg Arg Gly Ser Leu Pro Ser His Leu Gln Leu Ala Asp Pro Gln		
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Gly Ser Trp Gln Glu Gln Leu Ala Ala Pro Glu Glu Gly Glu Thr Lys		
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Ile Ala Leu Glu Arg Glu Lys Asp Asp Met Glu Thr Lys Leu Leu His		
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Leu Glu Asp Val Val Arg Ala Leu Glu Lys His Val Asp Leu Arg Glu		
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Asn Asp Arg Leu Glu Phe His Arg Leu Ser Glu Glu Asn Thr Leu Leu		
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Lys Asn Asp Leu Gly Arg Val Arg Gln Glu Leu Glu Ala Ala Glu Ser		
1125	1130	1135
Thr His Asp Ala Gln Arg Lys Glu Ile Glu Val Leu Lys Lys Asp Lys		
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Glu Lys Ala Cys Ser Glu Met Glu Val Leu Asn Arg Gln Asn Gln Asn		
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Tyr Lys Asp Gln Leu Ser Gln Leu Asn Val Arg Val Leu Gln Leu Gly		
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Gln Glu Ala Ser Thr His Gln Ala Gln Asn Glu Glu His Arg Val Thr		
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Ile Gln Met Leu Thr Gln Ser Leu Glu Glu Val Val Arg Ser Gly Gln		
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Asn Gln Glu His Gln Ser Leu Gln Leu Pro Trp Ser Glu Leu Thr Gln		
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Thr Leu Glu Glu Ser Gln Asp Gln Val Gln Gly Ala His Leu Arg Leu		

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Lys Ala Thr Glu Glu Arg Val Glu Glu Ala Glu Met Ile Leu Lys Asn		1310
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Gly Ala Glu Lys Gln Ser Arg Leu Leu Glu Glu Lys Val Arg Ala Leu		1375
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Asn Lys Leu Val Ser Arg Ile Ala Pro Ala Ala Leu Ser Val		1390
	1395	1400
		1405

<210> 5361  
 <211> 1080  
 <212> DNA  
 <213> Homo sapiens

<400> 5361  
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 180  
 catccacaag gccagcagct gccaacagct gccctagacc tatcaacaag acaacttcat  
 240  
 ggctcccaat gggaatggag gctgggccc cctacttag agcaggggaa agaacttttc  
 300  
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 360  
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 420  
 ctcaagttcc taaacagagt aagtgccagt tgatgtccca ccgtggatcc ttactccag  
 480  
 aaaaattgta atgatggctc ggccaccgcc ttggctagag tcccactgca cgcgtgtcgt  
 540  
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 720  
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 780  
 tggccaggct ggtctegaac gctgacctc atgnnatcca cccgccttgg cctcccaaat  
 840

tgctgggacc acaggcgtga gccaccgcgc ccggccgtct gtctgggttt caaaccaatc  
 900  
 aatgaacccg taagcctctt tggatatat aacaatgaaa aaattcatta agccatgaaa  
 960  
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<210> 5362  
 <211> 165  
 <212> PRT  
 <213> Homo sapiens

<400> 5362  
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 Ala Thr Ala Leu Ala Arg Val Pro Leu His Ala Cys Arg Glu Gly Arg  
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 Trp Ala Ser Pro Ser Gly Phe Phe Cys Cys Cys Cys Phe Leu Arg  
 35 40 45  
 Trp Ser Leu Ala Leu Xaa Ala Gln Thr Glu Val Gln Arg Pro Asp Leu  
 50 55 60  
 Asn Ser Leu Gln Pro Pro Pro Gly Phe Lys Gly Phe Ser Cys Leu  
 65 70 75 80  
 Ser Leu Leu Ser Ser Trp Asp Tyr Arg His Pro Pro Ala Arg Pro Ala  
 85 90 95  
 Phe Phe Cys Ile Phe Ser Arg Asp Gly Val Leu Ser Cys Trp Pro Gly  
 100 105 110  
 Trp Ser Arg Thr Pro Asp Leu Met Xaa Ser Thr Arg Leu Gly Leu Pro  
 115 120 125  
 Asn Cys Trp Asp His Arg Arg Glu Pro Pro Arg Pro Ala Val Cys Leu  
 130 135 140  
 Val Phe Lys Pro Ile Asn Glu Pro Val Ser Leu Phe Gly Ile Tyr Asn  
 145 150 155 160  
 Asn Glu Lys Ile His  
 165

<210> 5363  
 <211> 894  
 <212> DNA  
 <213> Homo sapiens

<400> 5363  
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 cggcgttgca ccggctctgt gacacctcc cctctgagca ctcccttgt gacaggccac  
 180  
 ttcccttgtg acaggccag gacgaggtgg ccaggcgccc cccatggcgt ccctgggtcta  
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 780  
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<210> 5364  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 5364  
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 Pro Gly Leu Tyr Ser Tyr Ile Arg Asp Asp Leu Phe Thr Ser Glu Ile  
 35 40 45  
 Phe Lys Leu Glu Leu Gln Asn Ala Pro Arg His Ala Ser Phe Ser Asp  
 50 55 60  
 Val Arg Arg Phe Leu Gly Arg Phe Gly Leu Gln Pro His Lys Thr Lys  
 65 70 75 80  
 Leu Phe Gly Gln Pro Pro Cys Ala Phe Val Thr Phe Arg Ser Ala Ala  
 85 90 95  
 Glu Arg Asp Lys Ala Leu Arg Val Leu His Gly Ala Leu Trp Lys Gly  
 100 105 110  
 Arg Pro Leu Ser Val Ala Trp Pro Gly Pro Arg Pro Thr Pro Trp Pro  
 115 120 125  
 Gly Gly Gly Xaa Gln Glu Gly Glu Ser Glu Pro Pro Val Thr Arg Xaa  
 130 135 140  
 Gly Arg Arg Gly Asp Pro Ser Met Asp Ser Ala Leu Xaa Leu Ser Ser  
 145 150 155 160  
 Leu Ser Gly Ser Ser Trp Ser Ala Ser Arg Cys Cys Arg Asn Xaa Ala  
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 Gln Glu Ile Gly Ser Thr Asn Arg Ala Leu Arg  
 180 185

<210> 5365  
 <211> 1824



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5365

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120  
gaactcgcca gaaaactgca ggaggaagct acgtgctcca tctgtctgga ttacttcaca  
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240  
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480  
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720  
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780  
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900  
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 aatataattg tgattagaac tgtcaaacat taagagggtg tactgacaga tgcttcctag  
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 1824

<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

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Ser	Ile	Cys	Leu	Asp	Tyr	Phe	Thr	Asp	Pro	Val	Met	Thr	Thr	Cys	Gly
			20					25					30		
His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
			35					40					45		
Gly	Lys	Lys	Gly	Arg	Arg	Lys	Arg	Lys	Gly	Ser	Phe	Pro	Cys	Pro	Glu
			50					55					60		
Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
			65					70					75		80
Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
				85						90				95	
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
				100						105				110	
Asp	Gln	Ser	Pro	Ile	Cys	Val	Val	Cys	Arg	Glu	Ser	Arg	Glu	His	Arg
				115						120				125	
Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
				130									140		
Lys	Leu	Glu	Glu	Asp	Met	Glu	Tyr	Leu	Arg	Glu	Gln	Ile	Thr	Arg	Thr
					150								155		160
Gly	Asn	Leu	Gln	Ala	Arg	Glu	Glu	Gln	Ser	Leu	Ala	Glu	Trp	Gln	Gly
				165						170				175	
Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
				180						185				190	
Asn	Leu	Tyr	Leu	Val	Glu	Glu	Glu	Gln	Arg	Leu	Leu	Gln	Ala	Leu	Glu
				195						200				205	
Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
				210						215				220	
Leu	Asp	Arg	Gln	Gly	His	Ser	Leu	Glu	Leu	Leu	Leu	Gln	Leu	Glu	
					230					235				240	
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
					245					250				255	
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
				260						265				270	
Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu

275                      280                      285  
 Val Leu Arg Gly Phe Leu Glu Asp Val Val Pro Asp Ala Thr Ser Ala  
 290                      295                      300  
 Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly  
 305                      310                      315                      320  
 Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala  
 325                      330                      335  
 Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr  
 340                      345                      350  
 Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly  
 355                      360                      365  
 Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro  
 370                      375                      380  
 Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu  
 385                      390                      395                      400  
 Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser  
 405                      410                      415  
 His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr  
 420                      425                      430  
 Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe  
 435                      440                      445  
 Pro Gly Pro Leu Gln Pro Phe Phe Cys Leu Gly Ala Pro Lys Ser Gly  
 450                      455                      460  
 Gln Met Val Ile Ser Thr Val Thr Met Trp Val Lys Gly  
 465                      470                      475

&lt;210&gt; 5367

&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5367

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 180  
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 300  
 tccccagccc ctgagactcc acagcctact tccccgaga ctcccccaa ggagacaccc  
 360  
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 420  
 aatgaggggg aagaggatga agaatgggag gacataagtg aggatgagga agaggaggag  
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 540  
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 549

&lt;210&gt; 5368

<211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 5368  
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 Lys Ala Glu Ala Ser Ser Arg Arg Arg Lys Ser Ser Arg Pro Gln  
 20 25 30  
 Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu  
 35 40 45  
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr  
 50 55 60  
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile  
 65 70 75 80  
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu  
 85 90 95  
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu  
 100 105 110  
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 115 120 125  
 His Gln Ala Pro Glu Ala Ala Pro Thr  
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<210> 5369  
 <211> 646  
 <212> DNA  
 <213> Homo sapiens

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 646

<210> 5370

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5370

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Met Lys Asp Leu Asp Ala Ile Lys Leu Phe Val Gly Gln Ile Pro Arg
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His Leu Asp Glu Lys Asp Leu Lys Pro Leu Phe Glu Gln Phe Gly Arg
      20           25           30
Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys
      35           40           45
Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro
      50           55           60
Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala
      65           70           75           80
His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro
      85           90           95
Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg
      100          105          110
Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Leu Pro Pro Ser Pro
      115          120          125
Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser
      130          135          140
Pro Phe Leu Phe
145

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&lt;210&gt; 5371

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5371

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tccacgccgt ccactgtcct cagcgaccag gccaaagtatc taaaccctt actgggagag
180
tggaagcact tcactgcctc cctggccccc cgcatgtcca accagggcat cgcggtgctc
240
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600
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660

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 780  
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 1020  
 gaccgcagcc agcccgaccc ggactttgcc tctgaggtga tgagtgtgtc tgactgggag  
 1080  
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 1177

<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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Pro	Ser	Leu	Gln	Ser	Pro	Gln	Thr	Glu	Leu	Arg	Ser	Asp	Phe	Gln	Cys
		20						25					30		
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35				40						45			
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
		50				55					60				
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
65					70					75				80	
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
			85					90						95	
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
			100					105					110		
Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
		115					120						125		
Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
		130				135					140				
Asn	Asp	Leu	Asn	Ala	Val	Glu	Arg	Tyr	Asp	Pro	Ala	Thr	Asn	Ser	Trp
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Ala	Tyr	Val	Ala	Pro	Leu	Lys	Arg	Glu	Val	Tyr	Ala	His	Ala	Gly	Ala
			165						170					175	
Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly	Glu	Asp
		180						185					190		
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr	Trp	His
		195					200						205		
Thr	Leu	Ala	Asp	Gly	Pro	Val	Arg	Arg	Ala	Trp	His	Gly	Met	Ala	Thr
		210				215						220			
Leu	Leu	Asn	Lys	Leu	Tyr	Val	Ile	Gly	Gly	Ser	Asn	Asn	Asp	Ala	Gly

225		230		235		240									
Tyr	Arg	Arg	Asp	Val	His	Gln	Val	Ala	Cys	Tyr	Ser	Cys	Thr	Ser	Gly
			245						250					255	
Gln	Trp	Ser	Ser	Val	Cys	Pro	Leu	Pro	Ala	Gly	His	Gly	Glu	Pro	Gly
			260					265					270		
Ile	Ala	Val	Leu	Asp	Asn	Arg	Ile	Tyr	Val	Leu	Gly	Gly	Arg	Ser	His
		275				280						285			
Asn	Arg	Gly	Ser	Arg	Thr	Gly	Tyr	Val	His	Ile	Tyr	Asp	Val	Glu	Lys
		290				295					300				
Asp	Cys	Trp	Glu	Glu	Gly	Pro	Gln	Leu	Asp	Asn	Ser	Ile	Ser	Gly	Leu
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			325					330					335		
Arg	Gly	Thr	Pro	Asp	Arg	Ser	Gln	Ala	Asp	Pro	Asp	Phe	Ala	Ser	Glu
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&lt;210&gt; 5373

&lt;211&gt; 4221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5373

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Asp Asp Ser Glu Val Pro Ser Ser Ser Gly Ile Asn Ser Thr Lys Ser  
 50 55 60  
 Gln Asp Lys Asp Val Asn Glu Gly Glu Thr Ser Asp Gly Val Arg Lys  
 65 70 75 80  
 Ser Val His Lys Val Phe Ala Ser Met Leu Gly Glu Asn Glu Asp Asp  
 85 90 95  
 Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Thr  
 100 105 110  
 Pro Glu Gln Pro Thr Ala Gly Asp Val Phe Val Leu Glu Met Val Leu  
 115 120 125  
 Asn Arg Glu Thr Lys Lys Met Met Lys Glu Lys Arg Pro Arg Ser Lys  
 130 135 140  
 Leu Pro Arg Ala Leu Arg Gly Leu Met Gly Glu Ala Asn Ile Arg Phe  
 145 150 155 160  
 Ala Arg Gly Glu Arg Glu Glu Ala Ile Leu Met Cys Met Glu Ile Ile  
 165 170 175  
 Arg Gln Ala Pro Leu Ala Tyr Glu Pro Phe Ser Thr Leu Ala Met Ile  
 180 185 190  
 Tyr Glu Asp Gln Gly Asp Met Glu Lys Ser Leu Gln Phe Glu Leu Ile  
 195 200 205  
 Ala Ala His Leu Asn Pro Ser Asp Thr Glu Glu Trp Val Arg Leu Ala  
 210 215 220  
 Glu Met Ser Leu Glu Gln Asp Asn Ile Lys Gln Ala Ile Phe Cys Tyr  
 225 230 235 240  
 Thr Lys Ala Leu Lys Tyr Glu Pro Thr Asn Val Arg Tyr Leu Trp Glu  
 245 250 255  
 Arg Ser Ser Leu Tyr Glu Gln Met Gly Asp His Lys Met Ala Met Asp  
 260 265 270  
 Gly Tyr Arg Arg Ile Leu Asn Leu Leu Ser Pro Ser Asp Gly Glu Arg  
 275 280 285  
 Phe Met Gln Leu Ala Arg Asp Met Ala Lys Ser Tyr Tyr Glu Ala Asn  
 290 295 300  
 Asp Val Thr Ser Ala Ile Asn Ile Ile Asp Glu Ala Phe Ser Lys His  
 305 310 315 320  
 Gln Gly Leu Val Ser Met Glu Asp Val Asn Ile Ala Ala Glu Leu Tyr  
 325 330 335  
 Ile Ser Asn Lys Gln Tyr Asp Lys Ala Leu Glu Ile Ile Thr Asp Phe

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Glu Asn Lys Ala Pro Glu Asn Val Thr Cys Thr Ile Pro Asp Gly Val
      370      375      380
Pro Ile Asp Ile Thr Val Lys Leu Met Val Cys Leu Val His Leu Asn
385      390      395      400
Ile Leu Glu Pro Leu Asn Pro Leu Leu Thr Thr Leu Val Glu Gln Asn
      405      410      415
Pro Glu Asp Met Gly Asp Leu Tyr Leu Asp Val Ala Glu Ala Phe Leu
      420      425      430
Asp Val Gly Glu Tyr Asn Ser Ala Leu Pro Leu Leu Ser Ala Leu Val
      435      440      445
Cys Ser Glu Arg Tyr Asn Leu Ala Val Val Trp Leu Arg His Ala Glu
      450      455      460
Cys Leu Lys Ala Leu Gly Tyr Met Glu Arg Ala Ala Glu Ser Tyr Gly
465      470      475      480
Lys Val Val Asp Leu Ala Pro Leu His Leu Asp Ala Arg Ile Ser Leu
      485      490      495
Ser Thr Leu Gln Gln Leu Gly Gln Pro Glu Lys Ala Leu Glu Ala
      500      505      510
Leu Glu Pro Met Tyr Asp Pro Asp Thr Leu Ala Gln Asp Ala Asn Ala
      515      520      525
Ala Gln Gln Glu Leu Lys Leu Leu Leu His Arg Ser Thr Leu Leu Phe
      530      535      540
Ser Gln Gly Lys Met Tyr Gly Tyr Val Asp Thr Leu Leu Thr Met Leu
545      550      555      560
Ala Met Leu Leu Lys Val Ala Met Asn Arg Ala Gln Val Cys Leu Ile
      565      570      575
Ser Ser Ser Lys Ser Gly Glu Arg His Leu Tyr Leu Ile Lys Val Ser
      580      585      590
Arg Asp Lys Ile Ser Asp Ser Asn Asp Gln Glu Ser Ala Asn Cys Asp
      595      600      605
Ala Lys Ala Ile Phe Ala Val Leu Thr Ser Val Leu Thr Lys Asp Asp
      610      615      620
Trp Trp Asn Leu Leu Leu Lys Ala Ile Tyr Ser Leu Cys Asp Leu Ser
625      630      635      640
Arg Phe Gln Glu Ala Glu Leu Leu Val Asp Ser Ser Leu Glu Tyr Tyr
      645      650      655
Ser Phe Tyr Asp Asp Arg Gln Lys Arg Lys Glu Leu Glu Tyr Phe Gly
      660      665      670
Leu Ser Ala Ala Ile Leu Asp Lys Asn Phe Arg Lys Ala Tyr Asn Tyr
      675      680      685
Ile Arg Ile Met Val Met Glu Asn Val Asn Lys Pro Gln Leu Trp Asn
      690      695      700
Ile Phe Asn Gln Val Thr Met His Ser Gln Asp Val Arg His His Arg
705      710      715      720
Phe Cys Leu Arg Leu Met Leu Lys Asn Pro Glu Asn His Ala Leu Cys
      725      730      735
Val Leu Asn Gly His Asn Ala Phe Val Ser Gly Ser Phe Lys His Ala
      740      745      750
Leu Gly Gln Tyr Val Gln Ala Phe Arg Thr His Pro Asp Glu Pro Leu
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Tyr Ser Phe Cys Ile Gly Leu Thr Phe Ile His Met Ala Ser Gln Lys

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Tyr Val Leu Arg Arg His Ala Leu Ile Val Gln Gly Phe Ser Phe Leu
785              790              795              800
Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
      850              855              860
Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu
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Tyr Thr Tyr Cys Ser Ile
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<210> 5375  
 <211> 526  
 <212> DNA  
 <213> Homo sapiens

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120
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240
cccctcctcc ttattaaaga agaatacatg tcgctgccat ttgccacgta tttgccatag
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360
catgtcccca ttttacagga gtggtgatta aggctcaaag gatggaggtg atggatcaaa
420
gtcgtctgcc aagtgggtgc agcattgggt ctcagaccga ggcccgtcta cacagtgtctg
480
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526

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<210> 5376  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

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<400> 5376
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      20      25      30
Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
      35      40      45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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50		55		60
Ser Ser Leu Leu Lys Lys Asn Thr Cys Arg Cys His Leu Pro Arg Ile				
65		70		75
Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr				80
	85		90	95
Gly Asp Gly Trp Gly Met Phe Met Ser Pro Phe Tyr Arg Ser Gly Asp				
	100		105	110

&lt;210&gt; 5377

&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5377

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1200

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<210> 5378

<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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Thr	Pro	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
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65				70					75					80	
Pro	Ser	Tyr	Ala	Lys	Lys	Val	Ala	Leu	Trp	Leu	Ala	Gly	Leu	Leu	Gly
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Ala	Gly	Gly	Thr	Val	Ser	Val	Val	Tyr	Ile	Phe	Gly	Asn	Asn	Pro	Val
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Leu	Val	Gln	Gln	Leu	Arg	Arg	Thr	Tyr	Lys	Tyr	Phe	Lys	Asp	Tyr	Arg
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Gly	Val	Leu	Leu	His	Pro	Glu	Trp	Ser	Leu	Ala	Thr	Gly	Trp	Arg	Phe
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Lys	Lys	Arg	Pro	Gly	Ile	Glu	Thr	Leu	Phe	Gln	Gln	Leu	Ala	Pro	Leu
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Leu	Ile	Asp	Ser	Val	Asp	Pro	His	Gly	Phe	Ile	Ser	Tyr	Arg	Leu	Phe
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Arg	Asp	Ala	Thr	Arg	Tyr	Met	Asp	Gly	His	His	Val	Lys	Asp	Ile	Ser
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Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
	260						265					270			
Glu	Ala	Phe	Arg	Leu	Gln	Pro	Tyr	Asn	Gly	Val	Ala	Leu	Arg	Pro	Trp
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Asp	Gly	Asn	Ser	Asp	Asp	Arg	Val	Leu	Leu	Asp	Leu	Ser	Ala	Phe	Leu

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      340              345              350
Ser Asn Lys Gln Asn Leu Phe Leu Gly Ser Leu Thr Ser Arg Leu Trp
      355              360              365
Pro Arg Ser Lys Gln Pro
      370

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&lt;210&gt; 5379

&lt;211&gt; 3213

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5379

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<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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Gln	Leu	Cys	His	Gly	Leu	Val	Gly	Ser	Trp	Pro	Ala	Cys	Ser	Ala	Pro
			20				25					30			
Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
		35					40				45				
Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
	50					55				60					
Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
65				70					75				80		
Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
			85					90					95		
Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
			100				105					110			
Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
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Leu	Tyr	Phe	Arg	Glu	Leu	Pro	Asn	Pro	Leu	Leu	Thr	Tyr	Gln	Leu	Tyr
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Gly	Lys	Phe	Ser	Glu	Ala	Met	Ser	Val	Pro	Gly	Glu	Glu	Glu	Arg	Leu
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Val	Arg	Val	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg
			165					170					175		
Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
			180				185					190			
Ala	Asn	Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro
	195					200					205				
Asn	Leu	Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala
	210				215					220					
Ala	Ala	Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu

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Leu Thr His Val Asp Val Leu Phe Ser Asp Thr Phe Thr Ser Ala Gly
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Leu Asp Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala
          260          265          270
Gly Ser Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala
          275          280          285
Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys
          290          295          300
Ala Pro Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys
305          310          315          320
Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly
          325          330          335
Arg Gly Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly
          340          345          350
Thr Arg Ala Pro Pro Gln Pro Ser Ala Trp Leu Asp Asp Gly Asp Glu
          355          360          365
Leu Asp Phe Ser Pro Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp
370          375          380
Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro
385          390          395          400
Ala Pro Pro Ala Ser Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro
          405          410          415
Pro Arg Val Thr Pro Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro
          420          425          430
Ala Ser Pro Ala Ala Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val
          435          440          445
Pro Pro Ala Val Leu Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser
450          455          460
Ala Thr Pro Thr Pro Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His
465          470          475          480
Leu Ile Pro Leu Leu Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala
          485          490          495
Cys Gln Gln Glu Met Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu
          500          505          510
Ala Arg Leu Met Ala Leu Ala Leu Ala Glu Arg Ala Gln Gln Val Ala
          515          520          525
Glu Gln Gln Ser Gln Gln Glu Cys Gly Gly Thr Pro Pro Ala Ser Gln
          530          535          540
Ser Pro Phe His Arg Ser Leu Ser Leu Glu Val Gly Gly Glu Pro Leu
545          550          555          560
Gly Thr Ser Gly Ser Gly Pro Pro Pro Asn Ser Leu Ala His Pro Gly
          565          570          575
Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp
          580          585          590
Gly Ser Leu Leu Arg Ser Gln Arg Pro Met Gly Thr Ser Arg Arg Gly
          595          600          605
Leu Arg Gly Pro Ala Gln Val Ser Ala Gln Leu Arg Ala Gly Gly Gly
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Gly Arg Asp Ala Pro Glu Ala Ala Ala Gln Ser Pro Cys Ser Val Pro
625          630          635          640
Ser Gln Val Pro Thr Pro Gly Phe Phe Ser Pro Ala Pro Arg Glu Cys
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Leu Pro Pro Phe Leu Gly Val Pro Lys Pro Gly Leu Tyr Pro Leu Gly

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 690 695 700  
 Ile Gly Ala Ser Glu Gly Ser Pro Tyr Ser Gly Pro Thr Arg Ser Trp  
 705 710 715 720  
 Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly  
 725 730 735  
 Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu  
 740 745 750  
 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr  
 755 760 765  
 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu  
 770 775 780  
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser  
 785 790 795 800  
 Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly  
 805 810 815  
 Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro  
 820 825 830  
 Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu  
 835 840 845  
 Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Gly Glu Leu  
 850 855 860  
 His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala  
 865 870 875 880  
 Gly Pro Pro Pro Pro Tyr Pro Thr Pro Ser Trp Ser Leu His Ser Glu  
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&lt;210&gt; 5381

&lt;211&gt; 1576

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5381

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&lt;210&gt; 5382

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5382

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 Ile Ser Gln Ala Trp Pro Gly Met Ala Arg Thr Ile Tyr Gly Asp His  
 35 40 45  
 Gln Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe  
 50 55 60  
 Thr Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr

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65          70          75          80
Gly Arg Met Asp Asp Val Ile Asn Ile Ser Gly His Arg Leu Gly Thr
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Ala Glu Ile Glu Asp Ala Ile Ala Asp His Pro Ala Val Pro Glu Ser
          100          105          110
Ala Val Ile Gly Tyr Pro His Asp Ile Lys Gly Glu Ala Ala Phe Ala
          115          120          125
Phe Ile Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Val Gln
          130          135          140
Glu Leu Lys Ser Met Val Ala Thr Lys Ile Ala Lys Tyr Ala Val Pro
145          150          155          160
Asp Glu Ile Leu Val Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys
          165          170          175
Val Met Arg Arg Leu Leu Arg Lys Ile Ile Thr Ser Glu Ala Gln Glu
          180          185          190
Leu Gly Asp Thr Thr Thr Leu Glu Asp Pro Ser Ile Ile Ala Glu Ile
          195          200          205
Leu Ser Val Tyr Gln Lys Cys Lys Asp Lys Gln Ala Ala Ala Lys
          210          215          220

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&lt;210&gt; 5383

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5383

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 2027

&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

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 Phe Pro Lys Val Glu Tyr Ile Ala Arg Ala Gly Ala Trp Ala Met Phe  
 20 25 30  
 Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu Leu Pro Pro Ala  
 35 40 45  
 Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg Leu Ala Ser Ala

50	55	60
Arg Ala Val Pro Arg	Asn Val Gln Pro Tyr Val Val Tyr Glu Glu Val	
65	70	75
Thr Asn Val Trp Ile	Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln	80
	85	90
Ser Glu Gly Glu Asp	Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys	95
	100	105
Thr Gly Phe Cys His	Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln	110
	115	120
Gly Tyr Asp Trp Ser	Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser	125
	130	135
Leu Thr Asn Ala Ile	Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe	140
145	150	155
Gln Gly Thr Lys Asp	Thr Pro Leu Glu His His Leu Tyr Val Val Ser	160
	165	170
Tyr Glu Ala Ala Gly	Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser	175
	180	185
His Ser Cys Ser Met	Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr	190
	195	200
Ser Ser Val Ser Thr	Pro Pro Cys Val His Val Tyr Lys Leu Ser Gly	205
	210	215
Pro Asp Asp Asp Pro	Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met	220
225	230	235
Met Glu Ala Ala Lys	Ile Phe His Phe His Thr Arg Ser Asp Val Arg	240
	245	250
Leu Tyr Gly Met Ile	Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys	255
	260	265
His Pro Thr Val Leu	Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val	270
	275	280
Asn Asn Ser Phe Lys	Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala	285
	290	295
Ser Leu Gly Tyr Ala	Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln	300
305	310	315
Arg Gly Leu Arg Phe	Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val	320
	325	330
Glu Ile Glu Asp Gln	Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr	335
	340	345
Gly Phe Ile Asp Leu	Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly	350
	355	360
Gly Phe Leu Ser Leu	Met Gly Leu Ile His Lys Pro Gln Val Phe Lys	365
	370	375
Val Ala Ile Ala Gly	Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr	380
385	390	395
Gly Tyr Thr Glu Arg	Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly	400
	405	410
Tyr Glu Ala Gly Ser	Val Ala Leu His Val Glu Lys Leu Pro Asn Glu	415
	420	425
Pro Asn Arg Leu Leu	Ile Leu His Gly Phe Leu Asp Glu Asn Val His	430
	435	440
Phe Phe His Thr Asn	Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys	445
	450	455
Pro Tyr Gln Leu Gln	Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr	460
465	470	475
Pro Asn Glu Arg His	Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr	480